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# BACHELOR OF PHARMACY (BPHARM) CATALOG

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2020-2024



*“Dubai Pharmacy College for Girls located in the Emirate of Dubai is officially licensed from 07/02/2016 to 20/01/2021 by the Ministry of Education of United Arab Emirates to award the Bachelor of Pharmacy degree in higher education.”*

*DPCG has fulfilled the certification requirements set forth by ACPE for the Professional Degree Program in Pharmacy and Provisional Certification*

*(Category 1 and 2), is hereby granted through January 31,2024*



*Praise be to Allah who taught man what he did not know and guided His servants through knowledge to the path of piety and obedience to Him. He Himself says in the Holy Book: Only those of his servants who are endowed with knowledge truly fear Allah. (35:28). And Allah's peace and blessing be upon Prophet Muhammad who taught humanity all things good, and guided it to righteousness and piety.*



**H. H. Shaikh Mohammed Bin Zayed Al Nahyan**  
President of the United Arab Emirates



**H. H. General Shaikh Mohammad Bin Rashid Al Maktoum**  
Vice President and Prime Minister of the  
United Arab Emirates and Ruler of Dubai



**H. H. Shaikh Hamdan Bin Mohammed Bin Rashid Al Maktoum**  
Crown Prince of Dubai



### DPCG Academic Calendar- Academic Year 2020-2021 (1442)

#### First Semester

Event	Day	Dates	Date / Hijri
Beginning of 1st Semester for 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> years	Sunday	30/08/2020	11/01/1442
Orientation & Beginning of MPharm Clinical Pharmacy 1st Semester classes	Friday	04/09/2020	16/01/1442
Beginning of 1st Year classes and Welcome Ceremony	Sunday	06/09/2020	18/01/1442
Beginning of Final Exams of 4th year	Sunday	6/12/2020	21/04/1442
Beginning of Final Exams for 1st, 2nd and 3rd years	Sunday	13/12/2020	28/04/1442
Winter Vacation	Sunday to Saturday	27/12/2020 to 09/01/2021	12/05/1442 to 25/05/1442
Beginning of Final Exams for M. Pharm 1st & 3rd Semester	Friday	01/01/2021	17/05/1442
Beginning of Re-sit Exams for 1st, 2nd and 3rd years	Sunday	10/01/2021	26/05/1442

#### End of First Semester

#### Second Semester

Beginning of 2nd Semester for 1st, 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> years	Sunday	10/01/2021	26/05/1442
Commencement of Classes for M. Pharm 2nd Semester	Friday	05/02/2021	23/06/1442
Beginning of Final Examination of 4th year	Sunday	14/03/2021	01/08/1442
Spring Vacation	Sunday to Saturday	28/03/2021 to 03/04/2021	15/08/1442 To 21/08/1442
Beginning of Hospital Training for 4 <sup>th</sup> year	Sunday	04/04/2021	22/08/1442
Beginning of Final Examinations for 1st, 2nd and 3rd years	Sunday	16/05/2021	04/10/1442
Beginning of Final Exams for M. Pharm 2nd Semester	Friday	04/06/2021	23/10/1442
Beginning of Re-sit Exams	Sunday	13/06/2021	03/11/1442
Announcement of Academic year results	Sunday	11/7/2021	01/12/1442
Summer Vacation Begins	Sunday	18/07/2021	08/12/1442



Events	
Event	Date
Prophets Birthday*	Thursday 29 <sup>th</sup> October 2020 (12 <sup>th</sup> Rabi-Al Awaal)
Martyr's Day	Tuesday, 1 <sup>st</sup> December 2020
UAE National Day	Wednesday and Thursday 2 <sup>nd</sup> - 3 <sup>rd</sup> December, 2020
New Year's Day	Friday, 1 <sup>st</sup> January, 2021 <b>-during winter break</b>
Farwell Party for Fourth year students	2 <sup>nd</sup> or 3 <sup>rd</sup> week of March, 2021
29 <sup>th</sup> Ramadhan - Eid Al Fitr Holiday*	12 - 15 <sup>th</sup> May, 2021
* <b>Note:</b> Islamic holidays are determined after sighting of the moon. Thus actual dates may not coincide with the dates in the calendar	
<b>**Beginning of Academic Year 2021-2022 will be on Sunday 29<sup>th</sup> August, 2021</b>	



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**Haji Saeed Bin Ahmed Al Lootah**

(1923-2020)

### **The Founder of Dubai Pharmacy College for Girls**

Founder **Haji Saeed Ahmed Al Lootah** is famous for his diverse and successful business ventures, non-profit educational institutions, entrepreneurship, veracity as well as its profound dedication to corporate citizenship and sustainable development. His success spans across key business sectors from construction, real estate and energy conservation, to financial services, applied research, ICT, education, hospitality, media and healthcare among others.

With the enduring values of education, cooperation and economy which set the foundations of his work, Dubai Pharmacy College for Girls was established in 1992. The first pharmacy College, accredited by the Ministry of Higher Education and Scientific Research, UAE, is the result of the single minded dedication of this great visionary.

His earlier educational ventures of importance and repute are- The Islamic School for Training and Education, Dubai Medical College for Girls, Dubai Institute for Environmental Research and Dubai Medical Centre for Treatment and Research.

Thanks to his vision and leadership, Dubai Pharmacy College for Girls continues to demonstrate unique values that extend well beyond its functional benefits creating more excellent economic, social and environmental benefits for people in the United Arab Emirates and beyond.

## PREFACE: an insight into Dubai Pharmacy College for Girls



*Prof. Dr. Saeed Ahmad Khan  
Dean, Dubai Pharmacy  
College for Girls*

This is a challenging time to enter the pharmacy profession. With each passing year, the number of prescriptions increases, and so does the role of a pharmacist. Welcome to Dubai Pharmacy College for Girls that offers an absolutely first-rate B.Pharm program, and so much more, all built on a tradition of excellence. That tradition is very long, indeed. Established in 1992 by Haji Saeed Ahmed Al Lootah, DPCG offered the first B.Pharm degree program in the Gulf region. In recognition, our College is accredited and licensed by the Ministry of Higher Education and Scientific Research, UAE in 1998. So, the Degree program has worldwide recognition. It is also endowed with the Dubai Quality Appreciation Award in 2004.

The modern facilities provided in the classrooms and, teaching and research labs would be a solid atmosphere for students who wish to study in pursuing a career as pharmacists who hold their own firm opinions based on scientific knowledge and researchers leading the field of Pharmaceutical Science and Life Science.

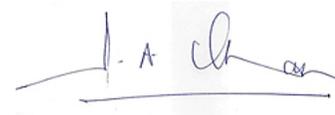
The curriculum has been designed to integrate the natural and social sciences with practice experience so that students will be able to learn, remember, and apply what they have been taught. Graduates of the DPCG program will learn to work collaboratively with other healthcare practitioners to help patients manage their medication regimens.

Early practice experiences will help DPCG students learn to communicate with patients, solve problems related to medications, and manage themselves and others in a practice environment. The practice experiences will become increasingly more challenging as students move through the student-centred curriculum. The fourth-year will be entirely experiential. Students will complete over 1000 hours of Professional Practice Experience (PPE) in community pharmacies, hospitals and pharmaceutical industries during their four years of study, enough to prepare them to enter practice upon graduation.

Every aspect of the teaching and learning processes will be continuously assessed to ensure that students are learning and instructors are teaching appropriately. Students, with the help of faculty advisors, will prepare Project portfolio to showcase their best work and document their progress in mastering the program's educational outcomes.

Dubai Pharmacy College for Girls proud of its tradition of close faculty-student relations. We welcome all of you who have a strong will to fulfil your dreams as competent and successful healthcare providers. I assure DPCG students will be well prepared to help patients manage their medication regimens and improve their quality of life.

Around the globe, we have more than 1000 alumni. Most of them are well placed or working towards a higher degree in the US, UK, Canada, India, Syria, Egypt, Sudan - this stands testimony to all our accomplishments.



## HISTORY of DUBAI PHARMACY COLLEGE for GIRLS

<p>The great visionary and philanthropist Hajj Saeed Bin Ahmed Al-Lootah founded Dubai Pharmacy College for Girls in September 1992. It was created under the umbrella of Dubai Institute of Environmental Research, with the goal of establishing itself as a state-of-art institute in pharmaceutical education and research.</p>	
1992	Dr. Mizra Beg, Director (DIER) was in charge. Dr Saeed Ahmad Khan was appointed as the Head of Educational Unit.
1992-'93:	The first batch of 27 students (16 girls and 11 boys) were enrolled.
1993	Prof. Fawzi Taha Ktob from Alexandria University took charge as the Dean.
1994-'95:	To provide internship to students DPCG tied-up with Dubai Govt. Hospitals and Julphar Pharmaceutical Industry; for an internship program for the students.
1996	April: Submission of the Form-A to the Ministry of the Higher Education and Scientific Research for the Accreditation process.
1996	October: Prof.J.S. Qadry was appointed as the Dean of the College.
1996	December: Graduation of the First Batch of Pharmacists.
1997	October: A team of experts from U.S.A visited the College to evaluate various facilities. A report was submitted to MOHE&SR.
1998	December: Got the approval and accreditation from the Ministry (MOHE&SR) as per its decree No (151) of 1998. The decree has authorized the College to award its graduates an approved degree of B.Pharm. Along with accreditation and deemed University status.
2001	February: Delegates from MOHE&SR revisited the College. The encouraging report was given. They also stressed that the College should start a Pharm.D.Degree program.
	August: Prof. Sobbi Ali Said took over as Dean
	-Dr. Saeed Ahmad Khan was appointed as Chief Academic Officer
	-Revised and updated syllabus and curriculum.
2004	Awarded the Dubai Quality Appreciation Award for being the Best Teaching Institute in the UAE.
2007	February: Dr. Saeed Ahmad Khan was appointed as the Dean.
	Initiated the open lecture series 'Pharmatalk- Share and Inspire', providing a platform for sharing best practices.
	Introduced advanced courses; Pharmacogenomics, Pharmaceutical Technology, Instrumentation Techniques, Clinical Testing Methods, Alternative and Complementary Medicines and Clinical Pharmacy, Pharmacoepidemiology.
2008	Initiated Journal Alert Forum (JAF) to bring in awareness of E-Journals, which resulted in periodical seminar presentations.
	Renovation of total infrastructure of the College, administration offices, faculty and staff offices, lecture rooms, the computer labs with all facilities.
	Major curriculum revision was done with the inclusion of newly revised assessment methods.
	New Administration Units and Committees were formed.
2011	Training in Global Pharmaceutical laboratories for student of the fourth year.
	DPC Newsletter, a monthly publication, was initiated with the aim of sharing experience and information covering news, events, faculty achievements and creative talents of students.
	This year is a proud moment in the history of Dubai Pharmacy College for Girls (DPCG) as the Master's Program got initial accreditation from the Ministry of Higher Education and Scientific Research, UAE; for two specializations: Clinical Pharmacy, and Pharmaceutical Product Development.
	Certificate course introduced in Drug Regulatory Affairs
2016	Awarded the GCC Pharma Outstanding Education Award.
	Re-accreditation for BPharm program by the Ministry of Education – Higher Education Affairs, UAE
2017	Introduced additional Certificate courses – Pharmacy Licensing and Pharmacovigilance
2018	Selected among 10 best valuable institutes in the UAE.
	Masters program was fully accredited by the Ministry of education – Higher Education Affairs, UAE.
	Education Leadership Award for Dean, Prof Saeed Ahmed Khan
	New research lab and labs for MPharm were designed in the DPCG extension in an adjacent building.
2019	The infrastructure of the library was enhanced to include newly-built study rooms to facilitate student learning.
	MoU with University of Strathclyde, United Kingdom to provide students in DPCG to pursue postgraduate/doctoral studies.
	DPCG signed an MoU with Manipal Academy of Higher Education (MAHE - Dubai)
2020	DPCG signed an MoU with Universitas 17 Agustus 1945 Jakarta, Indonesia

<b>DPCG Partnerships</b>	
<b>PROFESSIONAL PRACTICE EXPERIENCE PARTNERS</b>	
<b>ORGANIZATIONS</b>	<b>Description</b>
<b>Dubai Health Authority (DHA)</b>	<ul style="list-style-type: none"> <li>Undergraduate students in their last semester undertake and under course Hospital training in different hospitals of DHA.</li> <li>Postgraduate students undertake their Clinical Clerkship in their final year of study</li> </ul>
<b>Iranian Hospital- Dubai</b>	<ul style="list-style-type: none"> <li>Undergraduate students in their last semester undertake and under course Hospital training</li> <li>Postgraduate students undertake their Clinical Clerkship in their final year of study</li> </ul>
<b>Cleveland Clinic Abu Dhabi (CCAD)</b>	<ul style="list-style-type: none"> <li>Postgraduate students undertake their Clinical Clerkship in their final year of study</li> </ul>
<b>Military Hospital- Abu Dhabi</b>	<ul style="list-style-type: none"> <li>Postgraduate students undertake their Clinical Clerkship in their final year of study (applicable only for UAE Military staff)</li> </ul>
<b>MOHAP hospitals</b>	<ul style="list-style-type: none"> <li>Postgraduate students undertake their Clinical Clerkship in their final year of study (applicable only for UAE nationals only in Al Qasimi Hospital, Al Baraha Hospital &amp; Fujairah Hospital)</li> </ul>
<b>Thumbay Hospital- (GMU)-Ajman</b>	<ul style="list-style-type: none"> <li>Undergraduate students in their last semester undertake and under course Hospital training</li> <li>Postgraduate students undertake their Clinical Clerkship in their final year of study in Thumbay Hospital – Ajman.</li> </ul>
<b>Emirates European Hospital</b>	<ul style="list-style-type: none"> <li>Undergraduate students in their last semester undertake and under course Hospital training</li> </ul>
<b>NMC Hospitals</b>	<ul style="list-style-type: none"> <li>Undergraduate students in their last semester undertake and under course Hospital training</li> </ul>
<b>Dr. Sulaiman Al Habib Hospital</b>	<ul style="list-style-type: none"> <li>Undergraduate students in their last semester undertake and under course Hospital training</li> </ul>
<b>Althiqa Pharmacy Group</b>	<ul style="list-style-type: none"> <li>Community Pharmacy training for undergraduate students</li> </ul>
<b>Aster Group</b>	<ul style="list-style-type: none"> <li>Community Pharmacy training for undergraduate students.</li> </ul>
<b>Monash University</b>	<ul style="list-style-type: none"> <li>Collaborate with Monash University to provide Simulation training</li> </ul>
<b>ACADEMIC PARTNERS</b>	
<b>University of Strathclyde</b>	Memorandum of understanding with University of Strathclyde providing students the opportunity to pursue postgraduate /doctoral studies.
<b>Universiti Sains Malaysia (USM)</b>	Opportunity for students to pursue postgraduate/doctoral studies.. Faculty member in the Department of Clionical Pharmacy and Pharmacotherapeutics is an approved supervisor by USM
<b>International Islamic University Malaysia (IIUM)</b>	Opportunity for students to pursue postgraduate/doctoral studies.. Faculty member in the Department of Clionical Pharmacy and Pharmacotherapeutics and Department of Pharmaceutics are approved supervisors by IIUM
<b>Manipal Academy of Higher Education –(MAHE- Dubai)</b>	DPC and MAHE have common interest in field of pharmaceutical and life sciences education and research thus have a collaboration in the fields of academics, education and research.

<b>Universitas 17 Agustus 1945 Jakarta</b>	DPC and Universitas 17 Agustus 1945 Jakarta have common interest in field of pharmaceutical and life sciences education and research thus have a collaboration in the fields of academics, education and research.
<b>SVKM'S Dr. Bhanuben Nanavati College of Pharmacy</b>	DPC and SVKM'S Dr. Bhanuben Nanavati College of Pharmacy have common interest in field of pharmaceutical and life sciences education and research thus have a collaboration in the fields of academics, education and research.
<b>Ulster University, N Ireland</b>	DPC and Ulster University, N Ireland have common interest in field of pharmaceutical and life sciences education and research thus have a collaboration in research, summer schools, exchange of staff and students and joint course delivery.
<b>Institute of Pharmaceutical Sciences, (IPS) University of Veterinary and Animal Sciences (Uvas), Lahore, Pakistan</b>	DPC and UVAS have common interest in field of pharmaceutical and life sciences education and research thus promoting academic and professional cooperation in training
<b>University of Colorado SKAGGS School of Pharmacy and Pharmaceutical Sciences</b>	DPC collaborates with University of Colorado SKAGGS School of Pharmacy and Pharmaceutical Sciences to provide students to clinical training
<b>Professional Regulatory Affairs (PRA) Consultancy</b>	DPC partners with PRA to offer certificate courses in Regulatory Affairs, Pharmacovigilance, etc.
<b>STUDENT EXPERIENCE</b>	
<b>International Pharmaceutical Student Federation (IPSF).</b>	Students with the opportunity to explore numerous outreach activities, professional meetings, and student organization events.

## Vision

*"To serve the healthcare community by nurturing competent and professional pharmacists while promoting a learning environment that fosters innovation, leadership, continued professional development and quality assurance, making DPCGG one of the leading institutions for the pharmacy education in the world."*

## Mission

*"DPCG is committed to providing accredited pharmacy education at undergraduate and graduate level to female students based on Islamic values, the advancement of pharmaceutical knowledge through research and community service in order to serve pharmacy profession, scientific community and public."*

## Accreditation and Licensure

Dubai Pharmacy College for Girls offers the following degrees:

- I. Bachelor of Pharmacy
- II. Master of Pharmacy with specialization in  
 Clinical Pharmacy

The Commission accredits all the programs for Academic Accreditation (CAA), Ministry of Education – Higher Education Affairs, UAE.

## BOARD OF TRUSTEES



**Haj Saeed Bin Ahmed Al Lootah (Late)**  
*Founder and Former Chairman  
Board of Trustees*



**H.E Lieutenant General Dhahi Khalfan Tamim**  
*Lieutenant General and the current Deputy  
Chief of Police and General Security.  
Chairman  
Board of Trustees*



**Eng. Yahya Saeed Lootah**  
*Vice Chairman - Board of Trustees*



**Eng. Hussain Nasser Lootah**  
*Executive Director, SS Lootah Group  
Former Director General of Dubai  
Municipality  
Member, Board of Trustees*



**Dr. Mohammed Murad Abdulla**  
*Director, Foresight and Decision-  
Making Support, Dubai Police  
Member, Board of Trustees*



**Dr. Wadia Mohamed Al Sharief**  
*Director, Medical Education and  
Research Department, Dubai Health  
Authority  
Member, Board of Trustees*



**Dr. Fatima Sultan Al Olama**  
*Pediatrician, Champion of Women  
and Children's Healthcare  
Member, Board of Trustees*

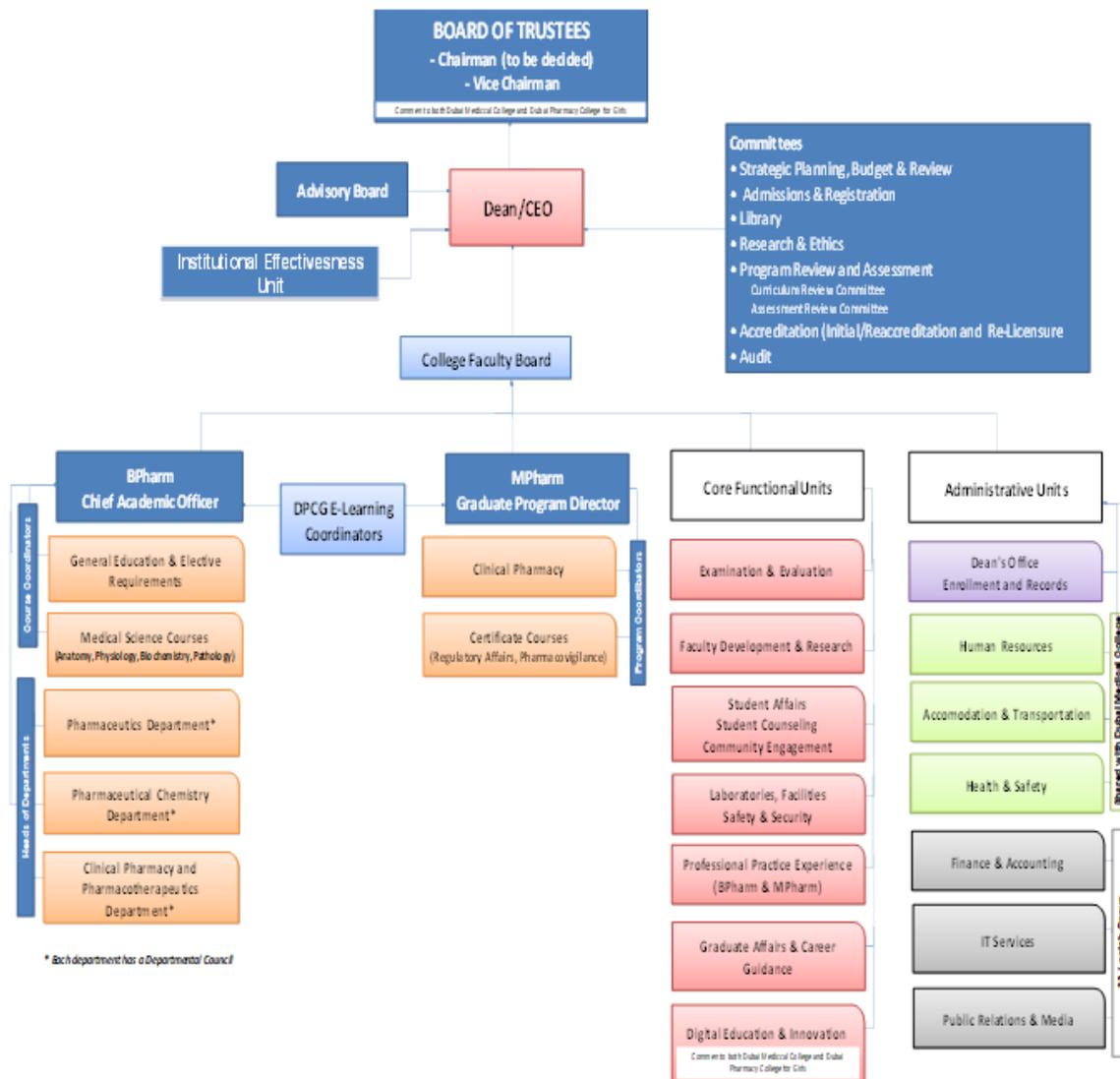


**Mr. Sultan Abdullah Bin Hada Al  
Suwaidi**  
*Chairman, Sharjah Economic  
Development Department (SEDD)  
Member. Board of Trustees*



**Prof. Saeed Ahmed Khan**  
*Dean, Dubai Pharmacy College for  
Girls*

## Organizational Structure



## 1. Program

<b>INSTITUTION:</b>	<b>Dubai Pharmacy College for Girls, Dubai, UAE</b>
<b>DEGREE:</b>	<b>Bachelor of Pharmacy</b>
<b>LENGTH &amp; MODE:</b>	<b>Four academic years, Full time</b>
<b>ACADEMIC PERIOD:</b>	<b>First of September to End of July</b>
<b>MINIMUM REGISTRATION PERIOD:</b>	<b>4 years</b>
<b>MAXIMUM REGISTRATION PERIOD:</b>	<b>6 years</b>
<b>Chief Academic Officer:</b>	<b>Prof. Naglaa Gamil Shehab</b>

## 2. Admission Requirements

To enroll in the DPCG undergraduate degree program, you will need to meet the minimum academic and English language requirements as outlined below:

<b>Academic Requirements:</b>	<p>Applicants from a high school following the U.A.E. curriculum must have:</p> <ul style="list-style-type: none"> <li>◆ The UAE High School Certificate – Science Stream (or equivalent) is required with an average score of 85% or more.</li> </ul> <p>If you come from a high school following an International curriculum must have 12 years of school in Science Stream (or equivalent) with a minimum 85% or more. Equivalency Certificate for a High School Certificate obtained abroad from the UAE Ministry of Education.</p> <p><b>Additional Requirements:</b></p> <p>Students of GCSE/IGCSE curriculum must have completed five subjects (Biology or Human Biology, Chemistry, English Language, Mathematics or additional Mathematics or Statistics, and Physics) at the ordinary level with at least 2 B's and 3 C's grades, plus two subjects (Biology and Chemistry) at the GCE Advanced Subsidiary or Advanced level with at least one B and one C grade.</p> <p>Students of International Baccalaureate Diploma must have completed six subjects with three at the standard level and three at the higher level with minimum 30 diploma points (equivalent grade of 80%) fulfilling following mandatory courses requirement:</p> <ul style="list-style-type: none"> <li>• Standard or Higher level Math</li> <li>• Standard or Higher level Biology</li> <li>• Standard or Higher level Chemistry</li> </ul>
<b>English Proficiency Requirements</b>	<p>All students are required to provide a certificate of English proficiency, such as:</p> <ul style="list-style-type: none"> <li>• Internet Based Test (IBT) TOEFL 61 out of 120. <i>TOEFL (PBT) will not be accepted.</i></li> <li>• International English Language Testing System (IELTS-Academic) 5.0 or more.</li> <li>• The Emirates Standardized Test (EmSAT) with a test score range 1100 – 1225</li> </ul> <p>Exceptions are:</p> <p>Any native speaker of English that has completed her secondary education in English medium institution in any country where English is an official language.</p>

Applications are initially reviewed by the College and applicant will be called for an interview. Final decisions rest with the College, which, after considering the recommendation of the department concerned, will notify the applicant of the decision.

Candidates should submit a certificate in proof of having good character and provide evidence for their emotional, social and academic maturity from the Head of the Institution last attended.

### DPCG Conditional Admission

Students who qualify for conditional admission will have to sign a note of undertaking of conditional admission that specifies the conditions that she must meet the minimum English Language Proficiency within a month from the date of joining. In case of not achieving the required score, she will be turned out of the College.

**Note:** Conditional admission means that students are limited to enrolling in 15 credit hours for the first semester and cannot continue without the required minimum score as set by the *Ministry of Higher Education and Scientific Research, UAE*.

### TRANSFER ADMISSION POLICIES

The College also welcomes applications from candidates studying with other educational institutions in BPharm. Course who wish to transfer to DPCG. It may be possible to grant exemption from the earlier part of the degree course in recognition of a candidate's success in her previous course of study.

The following are the necessary conditions for transfer to the DPCG from other Pharmacy Colleges:

1. Dubai Pharmacy College for Girls (DPCG) accepts the transfer of students from an accredited College with a curriculum that is comparable to that offered at DPCG.
2. Students must meet the English language proficiency requirements such as minimum TOEFL score of (61 IBT) or 5.0 in IELTS.
3. The student must provide a letter of application to the Dean of the College specifying reason (s) for requesting a transfer and desired date of transfer.
4. Dubai Pharmacy College for Girls requires applicants to submit their transcripts for evaluation of transferable subjects /teaching hours from previous College experiences.
5. No student who has been dismissed from any Pharmacy College will be eligible for transfer to DPCG.
6. All applicants must provide conduct certificates from the Pharmacy College, where they are currently enrolled.
7. All applicants should contact the **Dean's Office** to inquire about having their transcripts reviewed.
8. **The student transferring from another accredited College must be in good academic standing (a minimum CGPA of 2.0, C grade, on a 4.0 scale or equivalent).**
9. **A student applying for transfer to DPCG, must study more than 60% of the syllabus of B. Pharm at DPCG.**
10. The final decision for approval of transfer will be made by the Dean after review of the transfer request by the Chief Academic Officer of the College.
11. Transfer of students is not allowed after the second year.
12. Before considering any transfer application, the existence of an appropriate seat for the student should be considered.
13. Before attending Dubai Pharmacy College for Girls, attested records from the previous College and higher secondary school should be submitted to the Dean's secretary.

**ADMISSION RULES FOR DIPLOMA IN PHARMACY & SCIENCE GRADUATES Diploma in Pharmacy holders will be admitted in the second year of B.Pharm if they meet the following requirements:**

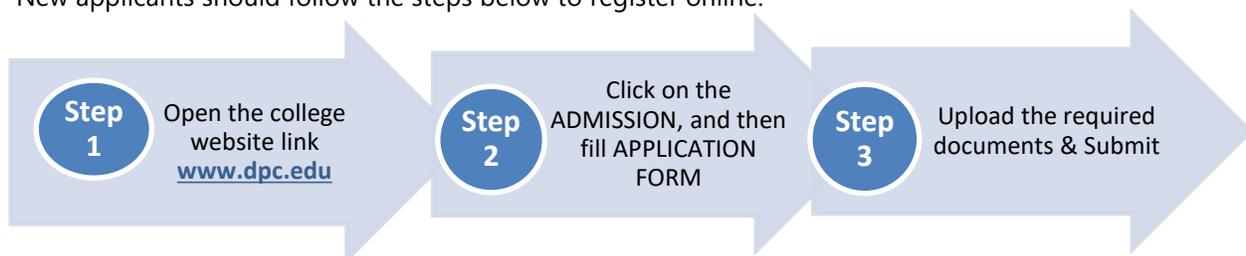
- 1) She should have passed the qualifying examination viz. Higher Secondary/Intermediate/10+2/GCE-A level "12 Grade" or equivalent with science subjects (Physics, Chemistry, Biology or Mathematics) from a school recognized by Ministry of Education, U.A.E. with not less than 85% marks in aggregate.
- 2) She should have passed Diploma in Pharmacy **with good academic standing (a minimum CGPA of 2.0, C grade, on a 4.0 scale or equivalent).**
- 3) She should apply for admission to BPharm course in DPCG within five years after obtaining the Diploma in Pharmacy and also she should be working in the field related to Pharmacy.
- 4) Candidates should submit a certificate in proof of having a good character and provide evidence for their emotional, social and academic maturity from the Head of the Institution last attended.
- 5) Evidence of proficiency in the English language should also be provided.

Science graduates and graduates in Medicine, Health Sciences, Dentistry and Veterinary Sciences can also be admitted to B. Pharm. **course if they meet the following requirements:**

- 1) She should have passed the qualifying examination viz. Higher Secondary/Intermediate/10+2/GCE-A level "12 Grade" or equivalent with science subjects (Physics, Chemistry, Biology or Mathematics) from a school recognized by Ministry of Education, U.A.E. with not less than 85% marks in aggregate.
- 2) She should have passed Graduate Degree with **good academic standing (a minimum CGPA of 2.0, C grade, on a 4.0 scale or equivalent).**
- 3) She should apply for admission in B. Pharm. course in DPCG within five years after obtaining her Graduate Degree and also she should be working in the field related to her specialization.
- 4) Candidates should submit a certificate in proof of having a good character and provide evidence for their emotional, social and academic maturity from the Head of the Institution last attended.
- 5) Evidence of proficiency in English language should also be provided.

**Online Registration:**

New applicants should follow the steps below to register online:



New applicants will be shortlisted and contacted. If you have any questions regarding the system, or should you encounter problems while using the system, call the College reception during office hours.

**Registration Procedure:**

Registration must be completed by the end of July of each year. Authority to extend this deadline is vested on the Dean.

The applicant should fill the online application form and attach the required documents with 300/- AED and then submit it to Dean's office.

### DOCUMENTS required for admission

The following documents will be required to be submitted along with the application form. The original certificates should be brought in person by the applicant at the time of interview.

1. Provisional certificate of the examination passed (Higher Secondary) based on which admission is sought.
2. Mark-sheet of the examination passed.\*
3. Leaving certificate from the school last attended.
4. Six passport size color photographs.
5. Birth certificate.
6. Character certificate from the Head of the Institution last attended.
7. Copy of the passport and resident visa (for expatriate students only).
8. Medical certificate.
9. A document certifying TOEFL/IELTS requirements.

**\*Note: School certificates from outside UAE should be attested from a place of issue:**

**a) Country of Study**

- Ministry of Education
- Ministry of Foreign Affairs
- The Embassy

**b) UAE**

- Equivalency certificate from Ministry of Education

### 3. Student Intake and Fee Structure

<b>STUDENT INTAKE:</b> Student intake will be limited to 70 students not exceeding 80 students in total.		
<b>Fees</b>	<b>Total Amount/Year</b>	<b>Mode of Payment</b>
<b>Tuition*</b>	Dhs45,000 (+5% VAT applicable) Dhs1100/credit hour	Dhs22,500/- at time of admission Four installments
<b>Hostel</b>	Dhs12000/- to 18000/-	Four installments with tuition fees.
<b>Transportation (+5% VAT applicable)</b>		
Dubai(daily)	Muhaisnah/Mezher/Mirdiff/Rashidiya/Twar/Qusais/ Nahda Dhs3000/- Deira/Bur Dubai/Satwa/Karama/Umm Suqaim/Jumeirah/Barsha Dhs4000/-	Four installments with tuition fees.
Sharjah/Ajman(daily)	Dhs 5000/-	
AbuDhabi, Fujairah, Al Ain, Baniyaas (weekly)	Dhs 5000/-	Four installments with tuition fees.

**\*NOTE:**

**The tuition fees once communicated will remain the same throughout the course for the four year of study. Transport and Hostel fees are subject to change.**

## financial aid

Dubai Pharmacy College for Girls as part of the Board of Trustees keen desire to attract outstanding girls students to the Dubai Pharmacy College, it is hereby decided as follows:

The College awards four scholarships to meritorious students each year who are newly admitted (equivalent to the tuition fee of the 1<sup>st</sup> year)

- One student is awarded 50% scholarship
- One student is awarded 40% scholarship
- Two students are awarded 20% scholarship each

This scholarship remains with the students all four years if they maintain their merit in each academic year results. If they do not maintain good academic standing, then other students with good grades are awarded the scholarship.

**Grant of the above-mentioned concession shall be subject to the following:**

1. Fulfillment of other conditions mentioned in the prevailing rules and regulations.
2. We are faithfully adhering to the Islamic educational codes and principles and other rules and regulations in force in the College.
3. The College shall not be bound to continue the concession so granted in case of the students transfer to another College, or any change in her educational progress.
4. Consistently obtaining not less than Excellent (grade) at all levels of studies.
5. Priority for an award of the concession shall be given to the candidate scoring the highest marks in the admission to the College.

## Refund Policy of Tuition Fees

Dubai Pharmacy College for Girls admits only a very limited number of students, so if any student after admission cancels her admission, then this will create a vacancy which could have been used by another qualified student. Therefore the College authorities are strict in their action for such students, and they will not refund the fees paid at the time of admission until and unless a valid reason is provided for cancellation of admission.

The valid reasons can be:-

1. If a candidate faces visa difficulties from U.A.E. govt. that are out of College Control.
2. If the guardian of the candidate faces sudden employment problems, such as termination, visa cancellation etc.
3. If a candidate is granted a scholarship provided that it occurs after the date of fee payment.

The refund usually is granted to a student in the first or second week after commencement of the academic year to which they are admitted.

Refund requests should be made at the Registration office through a written request enclosing the ID card and original fee receipt. Refunds will be made after clearance of dues if any. The amount paid is construed as your booking the seat for yourself in the College. The refund policy applicable is as follows:

In the case of withdrawal before joining the College	5% (applicable only on tuition fees )
For every month of attendance in case of withdrawal after joining the College :	
Bachelor of Pharmacy	AED 4500
Master of Pharmacy	AED 5000

### Add/Drop/Withdrawal from Courses

The credit transfer system is not applicable for regular students as DPCG strictly adheres to the time-table schedule, the students cannot add or drop any regular courses allotted for each semester.

### Withdrawal Policy

If a student in good standing requires a withdrawal, a written petition for withdrawal is made and approved by the Chief Academic Officer/ Graduate Program Director. Good standing designates any student not subject to probation or disqualification.

### Leave of Absence:

Students in good standing may request a Leave of Absence. A leave of absence allows a student to return to the same semester at any registration period for up to one year from the start of the leave without the necessity of re-applying but should fill in the Leave of Absence form. Students on scholarship who are in good academic standing will retain their award when returning to the College from a leave of absence not more than one year. Students returning from a Leave of Absence will need to fill out a readmission form available in the Dean's office.

### Returning Student Readmission Policy:

If returning to the first semester: Readmission form must be submitted on or before the start of the term.

If returning to the second semester: Readmission form must be submitted on or before the first week of the second semester of the same year.

Students returning from a *Leave of Absence* who have a tuition balance are subject to the rules regarding overdue tuition balances in place at that time. After one year, students will have to re-apply for admission and if applicable, for a scholarship.

Students' Leave of Absence that exceeds one calendar year from date of request will have their status changed to "Withdrawal."

## 4. Prospective Careers

Various avenues open to pharmacists in different areas of activity are as follows:

### 1) Community Pharmacy (Retail Pharmacy)

- Dispensing of prescriptions after review
- Selection of non-prescription drugs
- Pharmaceutical care for certain diseases
- Purchasing, storing and dealing with pharmaceutical products

### 2) Hospital Pharmacy (Clinical Pharmacy – Pharmaceutical Care)

- Dispensing of prescriptions after review
- Answering queries through the Drug Information Center
- Therapeutic Drug Monitoring
- Dealing with intravenous admixtures
- Pharmaceutical Care (prevents drug interactions and adverse drug reactions, proper use of drug products, ensure compliance, discover and solve adverse drug reactions)
- Production of certain radioactive drug products
- Administration, purchasing and participating in the selection of drugs

### 3) Pharmaceutical Industry

- Synthesis and analysis of raw materials
- Extraction of active ingredients from medicinal herbs, and other natural products

- Production of pharmaceutical products
- Quality Control of pharmaceutical products
- Research and Development
- Marketing and promotion of drugs/Distribution of pharmaceutical products

#### **4) Government Organizations (MOH & DHA)**

- Control and auditing of community hospital pharmacies
- Drug Registration and Control
- Defence and Interior Ministry pharmacies
- ADR monitoring

#### **5) Research and Development Centres**

- Research on drugs in various research centers
- Research on medicinal herbs, natural products, biotechnology and genetic engineering
- Research on other areas of pharmaceutical sciences

#### **6) Universities and Colleges**

- Work as Demonstrators/Teaching Assistants
- Seek higher education to obtain Diploma, Masters and Ph. D. degree

#### **7) Other Careers**

- Medicinal Diagnostic Laboratories
- Pharmaceutical Consultation
- Marketing for Drug Products
- Nuclear Pharmacy and Forensic Pharmacy
- Insurance companies

## 5. BPharm Program Aims and Outcomes

### 5. A. General Education Requirements (GER)

#### GER PROGRAM OBJECTIVES

GER program objectives builds on a foundation that prepares lifelong learners who will be engaged citizens in a complex and dynamic world in which they will live and work.

<b>Quantitative reasoning</b>	Apply mathematical and statistical reasoning to discipline specific problems and decision making
<b>Communication skills</b>	Interchange ideas and information effectively through writing, speech, and visual and digital media
<b>Ethical reasoning</b>	Assess and weigh moral beliefs and practices, and their applications to ethical dilemmas
<b>Technology and Information literacy</b>	Locate, evaluate, cite, and effectively using information
<b>Diverse perspectives and experiences</b>	Acquire knowledge and analytical skills to understand a variety of perspectives and experiences.
<b>Critical Inquiry</b>	Systematic questioning and analysis of problems, issues, and claims
<b>Wellness literacy</b>	Acquire knowledge in science-based health fitness and aesthetic concepts.

## 5. B. BPharm Program

### PROGRAM OBJECTIVES

1. Offer a highly motivated educational environment to provide the students with profound knowledge of various fundamental, pharmaceutical and clinical sciences.
2. Develop the ability of the students to utilize the acquired knowledge to contribute productively in various fields of pharmaceutical and clinical settings.
3. Produce graduates with professional skills needed to ensure effective communication with health care members, patients and community following professional code of ethics.
4. Develop a highly competent, responsible, life-long learner pharmacist with the vision of continuous professional development.

### PROGRAM OUTCOMES

QF Emirates Level 7	Program outcome:	Learning/ Teaching Methods and Strategies	Types/ Methods of assessment
<b>Knowledge</b>	<b>A1.</b> Acquire knowledge and understanding of natural and synthetic drugs, drug isolation, structural design, synthesis, and chemical structural relation with pharmacological activity and toxicity, analysis of drug and pharmaceutical products by qualitative and quantitative methods.	Lectures, Tutorials, Practical, Self-Directed Learning, Seminars, Problem Based Learning, Brainstorming	Written Examinations, Practical Reports, Project Report, Assignment.
	<b>A2.</b> Acquire knowledge of the basic concepts and techniques involved in manufacturing and quality assurance of different pharmaceutical and biotechnology-based products considering physicochemical, biopharmaceutical and pharmacokinetics aspects.		
	<b>A3.</b> Gain the comprehensive knowledge of biomedical, pharmacokinetics, pharmacodynamics & toxicological principles of medications appropriate to apply in clinical settings.		
	<b>A4.</b> Understand various concepts, policies and procedures related to pharmacy practice in different clinical settings including hospital and community.		
<b>Skills</b>	<b>B1.</b> Acquire the basic skills and techniques involved in drug manufacture and development, drug design and screening,	Practical classes, Project Work, Workshops, Problem	Oral, Scientific Poster, Symposium

	<p>quality control and analysis of pharmaceutical products.</p> <p><b>B2.</b> Communicate effectively orally and in writing and deploy a range of presentation techniques within workplace setting.</p> <p><b>B3.</b> Interpret prescription orders, integrate the knowledge of biostatistics and clinical calculations in identifying problems with drug therapy, formulate solutions and assess risk associated with the solutions to deliver the best pharmaceutical care to the patients.</p>	<p>Based Learning, Case studies, Computer Lab, Role play, Self-directed learning, Method demonstration, Field trip</p>	<p>, OSCEs, practical, Case-based assessment, Project Report &amp; Capstone Project, Article review ,Herbarium, Self-learning assessment, PBL assessment.</p>
<b>Competencies</b>	<p><b>C1.</b> Demonstrate the leadership ability being innovative and take responsibilities to function both independently and as a member of a team.</p> <p><b>C2.</b> Develop self-learning skills, problem solving skills, decision making and critical thinking abilities for professional development and become independent life- long learner.</p> <p><b>C3.</b> Display Islamic behaviour, moral and ethical attitudes to practice the profession competently in patient care.</p>	<p>Problem Based Learning, Prescription evaluation, Workshops, Role play</p>	<p>PPE, OSCEs, Calculations in Practice, PBL assessments, Capstone Project</p>



BPharm Program Objectives mapping against Program Outcomes										
Program objectives	Program outcomes									
	Knowledge				Skills			Competencies		
	A1	A2	A3	A4	B1	B2	B3	C1	C2	C3
1. Offer a highly motivated educational environment to provide the students with profound knowledge of various fundamental, pharmaceutical and clinical sciences.	√	√	√	√						
2. Develop the ability of the students to utilize the acquired knowledge to contribute productively in various fields of pharmaceutical and clinical settings.					√		√			
3. Produce graduates with professional skills needed to ensure effective communication with health care members, patients and community following professional code of ethics.						√				
4. Develop a highly competent, responsible, life-long learner pharmacist with the vision of continuous professional development.								√	√	√

## 6. Study Plan for the BPharm Program

Dubai Pharmacy College for Girls accepts only female students with General Secondary School Certificate or its equivalent with science subjects (Physics, Chemistry, Biology, or Mathematics) for admission to Bachelor of Pharmacy degree program. The BPharm curriculum requires a minimum of 164 hours

Dubai Pharmacy College for Girls grants its students, after successful completion, Bachelor's Degree in Pharmacy (B. Pharm.). The total program of Dubai Pharmacy College for Girls extends over four academic years and the maximum course duration to complete the degree within a reasonable time frame of six years. The academic year starts in September and ends in the third week of July.

- Each academic year is divided into 3 semesters.
- The first and second semesters are composed of twenty weeks of which 15 weeks devoted to teaching
- Summer semester is composed of 4 weeks in which 2 subjects only will be delivered (Third week of June-Third week of July)
- Each week has five teaching days which accounts for 30 teaching hours in a week.

	No. of Courses	Credit Hours	%
Elective Courses	3	6	3.6%
General Education Courses	11	21	12.8%
Core requirement	43	111	67.7%
Professional Practice Experience(PPE)	3	24	14.6%
Capstone Project (CS)	1	2	1.3%
<b>Total</b>	<b>61</b>	<b>164</b>	<b>100%</b>

Domain	No. courses	Credit Hours	%
PS-Pharmaceutical Science	16	43	38.7%
CS-Clinical Science	20	52	46.9%
BBS-Basic Biomedical Sciences	7	16	14.4%
<b>Total</b>	<b>43</b>	<b>111</b>	<b>100%</b>

### 6.1. Distribution of Courses

Academic Year 2020-2021							
FIRST YEAR							
Fall Semester							
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PN701	PS	Pharmaceutical Organic Chemistry- I	-	-	2	-	2
MC701	BBS	Anatomy and Physiology I	-	-	2	-	2
MC702	BBS	Medical Terminology	-	-	1	-	1
GE701	GE	Mathematics and Statistics	-	-	2	-	2
GE702	GE	English Communication and Critical Thinking Skills	-	-	2	1	3
GE703	GE	Computer Applications	-	-	-	2	2
PC701	GE /PS	Introduction & History of Pharmacy	-	-	2	-	2
<b>TOTAL</b>			-	-	<b>11</b>	<b>3</b>	<b>14</b>

Spring Semester							
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PN702	PS	Pharmaceutical Organic Chemistry- II	PN701	-	2	1	3
PN703	PS	Natural Products I	-	-	2	-	2
GE704	GE	Islamic Studies	-	-	2	-	2
GE705	GE	Positive Psychology	-	-	2	-	2
PC702	PS	Physical Pharmacy	PC701	-	2	1	3
MC703	BBS	Anatomy and Physiology-II	MC701	-	2	1	3
<b>TOTAL</b>					<b>12</b>	<b>3</b>	<b>15</b>
Summer Semester (three weeks continuously) =30 Lectures							
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
GE706	GE	Arabic Language Skills		-	2	-	2
GE707	GE	UAE Society		-	2	-	2
<b>Total</b>					<b>4</b>	<b>-</b>	<b>4</b>

Academic Year 2021-2022							
SECOND YEAR							
Fall Semester							
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
GE708	GE	Environmental Sustainability	-	-	2	-	2
PN704	PS	Pharmaceutical & Medicinal Chemistry –I	PN702	-	3	-	3
PN705	PS	Natural Products II	PN702, PN703	-	2	1	3
MC704	BBS	Biochemistry	MC703	-	2	-	2
MC705	BBS	Medical Microbiology	-	-	3	1	4
PC703	PS	Pharmaceutics-I	PC701, PC702	-	2	1	3
<b>TOTAL</b>					<b>14</b>	<b>3</b>	<b>17</b>
Spring Semester							
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PN706	PS	Pharmaceutical & Medicinal Chemistry –II	PN704	-	2	1	3
CP701	CS	Pharmacology and Therapeutics I	MC704, MC703	-	3	1	4
CP702	CS	Clinical Biochemistry	MC704	-	2	1	3
PC704	PS	Pharmaceutics-II	PC701; PC702	-	2	1	3
MC706	BBS	Immunology	MC705	-	2	-	2
MC707	BBS	Pathology	MC703	-	2	-	2
<b>TOTAL</b>					<b>13</b>	<b>4</b>	<b>17</b>
Summer Semester (three weeks continuously) =30 Lectures							
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
CP703	CS	Social and Behavior Aspects in Pharmacy	GE704	-	2	-	2
EC7011	EC	Elective area I		-	2	-	2
EC7012							
<b>Total</b>					<b>4</b>	<b>-</b>	<b>4</b>

Academic Year 2022-2023							
THIRD YEAR							
Fall Semester							
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PN707	PS	Pharmaceutical & Medicinal Chemistry-III	PN706, MC705	-	3	-	3
PC707	PS	Pharmaceutical Technology	PC703; PC704	-	2	1	3
PC705	PS	Basic Genetic and Pharmaceutical Biotechnology	MC705; PC703	-	3	-	3
PC706	PS	Biopharmaceutics and Pharmacokinetic	CP702, PC703; PC704	-	3	0	3
CP704	CS	Pharmacology and Therapeutics-II	CP701	-	3	1	4
CP705	CS	Alternative and Complementary Medicines	PN705, CP701	CP704	2	-	2
<b>TOTAL</b>					<b>16</b>	<b>2</b>	<b>18</b>
Professional Practice Experience							
Code	Domain	Professional Practice Experience	No of Hours	No of Credit Hours			
PPE01	CS	Introductory Professional Practice Experience	200	4			
Spring Semester							



Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PN708	PS	Instrumental Analysis	PN706	-	2	1	3
CP706	CS	Pharmacology and Therapeutics- III	CP704	-	3	1	4
CP707	CS	Clinical Pharmacy and Pharmaceutical Care	CP701, CP704	CP706	3	-	3
CP708	CS	Pharmacy Practice	CP704		3	1	4
CP709	CS	Clinical Toxicology	CP704	-	2	-	2
CP710	CS	Applied Pharmacokinetics	PC706		2	-	2
<b>TOTAL</b>					<b>15</b>	<b>3</b>	<b>18</b>

**Professional Practice Experience**

Code	Domain	Professional Practice Experience	No of Hours	No of Credit Hours
PPE03A	CS	Advanced Professional Practice Experience	100	2.0

**Summer Semester (three weeks continuously) =30 Lectures**

Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
EC7021/22/23	EC	Elective area II	-	-	2	-	2
EC7031/32	EC	Elective area III	-	-	2	-	2

**Academic Year 2023-2024**

**FOURTH YEAR**

**Fall Semester**

Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
CP711	CS	Pharmacology and Therapeutics- IV	CP706	-	3	1	4
CP712	CS	Pharmacogenomics	CP706; PC705	CP711	2	-	2
CP713	GE/CS	Research Methodology & Biostatistics	GE701, GE702, GE703	-	2	-	2
CP714	CS	Hospital Pharmacy	CP707	-	2	-	2
CP715	CS	Pharmacy Laws and Drug Regulations	-		1	-	1
CP716	CS	Pharmacoepidemiology & Pharmacovigilance	CP707	-	2	-	2
<b>TOTAL</b>					<b>12</b>	<b>1</b>	<b>13</b>

**Professional Practice Experience**

Code	Domain	Professional Practice Experience	No of Hours	No of Credit Hours
PPE02	PS	Industrial Professional Practice Experience	100	2

**Spring Semester**

Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
GE709	GE	Innovation and Entrepreneurship	-		2	-	2
CP717	CS	Integrated Problem Based Learning	CP707, CP711	-	-	3	3
CP718	CS	Professional Skills in Practice	CP707, CP708, CP714	-	1	2	3
CP719	CS	Pharmaceutical Management	-	CP718	2	-	2
CP720	CS	Pharmacy Automation & Informatics	CP713		2	-	2
PC708	PS	Pharmaceutical Calculations in Practice	PC702; PC703; PC704; CP710	CP718	2	-	2
CS701		Capstone Project	-		-	2	2
<b>TOTAL</b>					<b>9</b>	<b>7</b>	<b>16</b>

**Professional Practice Experience**

Code	Domain	Professional Practice Experience	No of Hours	No of Credit Hours
PPE03B	CS	Advanced Professional Practice Experience	640	16



### 7. Courses of Study in the BPharm program

General Education (GE)	21	Pharmaceutical Sciences (PS)	43
Mathematics and Statistics	2	Pharmaceutical Organic Chemistry- I	2
English Communication and Critical Thinking Skills	3	Pharmaceutical Organic Chemistry- II	3
Islamic study	2	Natural Products I	2
Research Methodology	1	Physical Pharmacy	3
Positive Psychology	2	Pharmaceutical & Medicinal Chemistry –I	3
Computer Applications	2	Natural Products II	3
History of Pharmacy	1	Pharmaceutics- I	3
Arabic Language Skills	2	Pharmaceutical & Medicinal Chemistry –II	3
Environmental Sustainability	2	Pharmaceutics-II	3
UAE Society	2	Pharmaceutical & Medicinal Chemistry-III	3
Innovation and Entrepreneurship	2	Instrumental Analysis	3
<b>Basic Biomedical Sciences (BBS)</b>	<b>16</b>	Basic Genetic and Pharmaceutical Biotechnology	3
Anatomy and Physiology I	2	Biopharmaceutics and Pharmacokinetic	3
Anatomy and Physiology II	3	Pharmaceutical Technology	3
Medical Terminology	1	Pharmaceutical Calculations in Practice	2
Biochemistry	2	Introduction to Pharmacy	1
Pathology	2	<b>Clinical Sciences (CS)</b>	<b>52</b>
Medical Microbiology	4	Clinical Biochemistry	3
Immunology	2	Social and behavior aspects in Pharmacy	2
<b>Professional Practice Experience (PPE)</b>	<b>24</b>	Pharmacology and Therapeutics I	4
Introductory Professional Practice Experience (PPE-01)	4	Pharmacology and Therapeutics-II	4
Industrial Professional Practice Experience (PPE-02)	2	Alternative and Complementary Medicines	2
Advanced Professional Practice Experience (PPE-03A&B)	18	Pharmacology and Therapeutics- III	4
<b>Electives (EC)*</b>	<b>6</b>	Clinical Pharmacy and Pharmaceutical Care	3
Elective (choose from Area-I)	2	Pharmacy Practice	4
Elective (choose from Area-II)	2	Clinical Toxicology	2
Elective (choose from Area-III)	2	Applied Pharmacokinetics	2
<b>Area I</b>		Pharmacology and Therapeutics- IV	4
EC7011 -Organizational Behavior and Cultural Diversity		Pharmacogenomics	2
EC7012- Emotional Intelligence and Leadership		Biostatistics	1
<b>Area II</b>		Professional Skills in Practice	3
EC7021 - Nuclear Pharmacy		Pharmacy Laws and Drug Regulations	1
EC7022 - Bioassay		Pharmaceutical Management	2
<b>Area III</b>		Integrated Problem Based Learning	3
EC7031 - Nutrition and Health		Hospital Pharmacy	2
EC7032 - GMP Guidelines in Pharmaceuticals		Pharmacoepidemiology & Pharmacovigilance	2
<b>Capstone Project (CS)</b>	<b>2</b>	Pharmacy Automation & Informatics	2
Capstone Project (CS)	2		

8. Course Description		
GENERAL EDUCATION		
<b>Mathematics and Statistics</b>	<b>Course Code: GE701</b>	<b>Credit Hours: 2+0</b>
The course will introduce basic mathematical concepts and calculations required for the subsequent studies of pharmaceutical and clinical calculations. The course includes introduction of critical mathematical concepts through the development of mathematical techniques. Students will be equipped with the skills needed to apply mathematical techniques correctly. Statistical concepts will be introduced helping students to analyze data using quantitative analysis techniques, measures of central tendency and measures of spread, samples and populations and histograms.		
<b>English Communication and Critical Thinking Skills</b>	<b>Course Code: GE702</b>	<b>Credit Hours: 2+1</b>
This course is designed to enable the students to achieve oral, written communication and critical thinking skills. Students in this course are trained to apply critical thinking skills to a wide range of challenging subjects from a diverse range of topics. The course is designed to enable the students to identify information that is needed to support their work, understand how the information is organized in the library, identify the best sources of information for their need, locate these resources and evaluate the sources critically which will help them to become a lifelong learner. Course activities include writing various types of academic genre. Students, in this course, are assessed by different assessment tools, such as oral presentations, assignments and written exams.		
<b>Computer Applications</b>	<b>Course Code:: GE703</b>	<b>Credit Hours: 0+2</b>
The aim of this course is to provide students, the ability to access e-learning tools with the help of the Learning Management System to facilitate remote online learning. It will provide students, the ability to format and document text, numeric data, referencing methods, presentation skills using MS. office applications while using technology to support educational goals and reinforcing skills that help them to demonstrate the responsible use of technology and an understanding of ethics and safety issues in using electronic media.		
<b>Islamic Studies</b>	<b>Course Code: GE704</b>	<b>Credit Hours: 2+0</b>
This Islamic studies course aims to give the students a comprehensive understanding of the main two sources of Islamic Legislation: Holy Qur'an and sunnah (Prophet Mohamed Hadith). This course deals with the definition of the Holy Qur'an with an explanation of selected Qur'anic verses, the definition of Sunnah with an explanation of selected Prophet's sayings (Hadith), study sections of the biography of the prophet (PBUH), and the definition of schools of jurisprudence and the reasons for their differences, with an indication of the most important sources and references of Islamic studies.		
<b>Positive Psychology</b>	<b>Course Code: GE705</b>	<b>Credit Hours: 2+0</b>
The course will provide students with the basic concept of 'Positive Psychology', and 'Cognitive Psychology' concentrating on optimal human functioning which makes people happier, more productive and more successful. Psychological wellbeing, ability to build happiness through positive emotions, more resilience of being prepared to set priorities and goals building skills, personal growth identifying sources of stress in life, coping through practising mindfulness that relates to happiness, human connections and social qualities - such as compassion, cooperation, mindfulness and gratitude - are stressed in this course.		
<b>Arabic Language Skills</b>	<b>Course Code: GE706</b>	<b>Credit Hours: 2+0</b>
The course provides the students to acquire basic language skills (e.g., grammar, eloquence, and spelling) and paying attention to linguistic methods and correcting mistakes.		
<b>UAE Society</b>	<b>Course Code: GE707</b>	<b>Credit Hours: 2+0</b>
This course provides basic information concerning contemporary life in the UAE and the major social change taking place since the establishment of the federation until this day. The students will be able to know the historical framework to the inception of UAE, its political system, economy, family, migration, population, woman, youth, and the development of civil society.		
<b>Environmental Sustainability</b>	<b>Course Code: GE708</b>	<b>Credit Hours: 2+0</b>
The course introduces the global environmental issues linked to different climatic factors. The course covers current global environmental issues related to ecological factors and studies the importance of renewable and alternative sources of energy. It also examines major threats posed by the environment due to climatic changes.		
<b>Innovation and Entrepreneurship</b>	<b>Course Code: GE709</b>	<b>Credit Hours: 2+0</b>
This course aims to provide the students with an overview of the key concepts of strategic planning as a fundamental component of the Innovation & Entrepreneurship		
<b>General Education/Pharmaceutical Sciences (GE/PS)</b>		

<b>Introduction and History of Pharmacy</b>	<b>Course Code: PC701</b>	<b>Credit Hours: 1+1</b>
This course introduces the student to the profession of pharmacy and the role of the pharmacist within health care delivery systems, it gives preview about the history of pharmacy and the different historical Eras, the essential contributions of the ancient people and cultures to the evolution of the profession. Also, it describes the legislative, ethical and professional standards in which the profession of pharmacy operates. The calculation of concentration expressions. This course also introduces basic concepts in pharmaceutics including discussion on dosage forms design, routes of drug administration, pharmaceutical preparations, medical prescription, labelling of medications and pharmaceutical Latin abbreviations. Besides, the course teaches extemporaneous dispensing and the fundamentals in the calculation of concentration expressions		
<b>General Education/ Clinical Sciences (GE/CS)</b>		
<b>Research Methodology&amp; Biostatistics</b>	<b>Course Code: CP713</b>	<b>Credit Hours:1+1</b>
This is an intensive introductory course to understand the basic concepts of pharmaceutical, clinical research & statistical methods used in applied research. This helps the students in getting acquainted with different research strategies and identifying potential research plans that will help them in their future research projects. This course helps the students to develop the writing skills of the research proposal, reports, thesis & articles in international standards. The course familiarizes the students with the use of a statistical package and gives them the skills needed for effective data management, data manipulation, data analysis at a basic level. The course will develop basic skills in the use of a statistical package through classroom demonstrations and independent lab		

<b>BASIC BIOMEDICAL SCIENCES</b>		
<b>Anatomy and Physiology-I</b>	<b>Course Code: MC701</b>	<b>Credit Hours: 2+0</b>
The course offers a comprehensive knowledge of the structure and function of the human cell, integumentary, Blood, skeletal, muscular and nervous systems. The information offered by the course forms the foundations for further understanding of pharmacology, pathology, pathophysiology, and medicine. It gives the student an opportunity to develop into an independent learner and researcher.		
<b>Medical Terminology</b>	<b>Course Code: MC702</b>	<b>Credit Hours: 1+0</b>
Medical terminology is the study of the principles of medical word building to help the student develop the extensive medical vocabulary used in health care occupations. Students receive a thorough grounding in basic medical terminology through a study of root words, prefixes and suffixes. The study focuses on correct pronunciation, spelling, abbreviations and use of medical terms.		
<b>Anatomy and Physiology-II</b>	<b>Course Code: MC703</b>	<b>Credit Hours: 2+1</b>
The course offers a comprehensive knowledge of the structure and function of the digestive, cardiovascular, respiratory, renal system, endocrine and reproductive systems. The information offered by the course forms the foundations for further understanding of pharmacology, pathology, pathophysiology, and medicine. It gives the student an opportunity to develop into an independent learner and researcher.		
<b>Biochemistry</b>	<b>Course Code: MC704</b>	<b>Credit Hours: 2+0</b>
The course provides the Pharmacy students with the knowledge to understand the mechanisms of life, acid-base balance, structure-function relationship and clinical correlation of different bio molecules including carbohydrate, lipids, amino acids, proteins, enzymes, haemoglobin and fibrous proteins and ultimately energy production through oxidative phosphorylation reactions in the mitochondrial electron transport chain.		
<b>Medical Microbiology</b>	<b>Course Code: MC705</b>	<b>Credit Hours: 3+1</b>
Medical Microbiology is an exciting discipline with far-reaching impacts on human health and disease. This course will introduce students to the microbial species that cause human disease. We will cover bacteria, fungi, and viruses and discuss current topics, including antibiotic resistance, public health threats, and global health. The course also discusses various issues related to Sterilization, Sterility testing, Microbial spoilage & preservation of pharmaceutical products. The laboratory focuses on the Fundamental microbiological techniques. This course is therefore intended to provide knowledge in Microbiology, and students will gain both background and experimental experience in the broad field of microbes setting foundation needed for more advanced and specialized courses.		
<b>Immunology</b>	<b>Course Code: MC706</b>	<b>Credit Hours: 2+0</b>
The aim of this course is to provide the students with an understanding of the immune system, important theories of immunology and the different types of failures of the immune system. The students will be aware of immunohematology and various immune therapies which include Biotherapeutics, Immune stimulants, Immune suppressants and Monoclonal antibodies.		

<b>Pathology</b>	<b>Course Code: MC707</b>	<b>Credit Hours: 2+0</b>
The course provides the students with the basic knowledge and conceptual understanding of the pathology of various diseases. Thus the student will be familiar with the names, classification, pathogenesis and pathological changes in the various body tissues in different diseases.		

PHARMACEUTICAL SCIENCES (PS)		
<b>Pharmaceutical Organic Chemistry- I</b>	<b>Course Code: PN701</b>	<b>Credit Hours: 2+0</b>
This course describes the structure of atoms, atomic orbital, hybridization, types of chemical bonding, the polarity of bond and its relationship with the electronegativity of the element. It also covers the reaction mechanism involves homolytic and heterolytic bond cleavages in a chemical reaction, production of free radicals and their stability. This course also describes the resonance structure, substituents effect on the resonance, types of isomerism and their effect on the optical activity of organic molecules.		
<b>Pharmaceutical Organic Chemistry- II</b>	<b>Course Code: PN702</b>	<b>Credit Hours: 2+1</b>
This course describes the structural configuration, nomenclature, physical properties, preparation methods, and chemical reactions/reaction mechanism of different functional groups as an aliphatic, aromatic hydrocarbon, substituted hydrocarbons, polynuclear hydrocarbons, esters, ethers, thioethers, alcohols, carboxylic acids, aldehydes, ketones, amines, diazonium salts and heterocyclic compounds. Laboratories include identification of functional groups of different organic molecules and preparation of selected organic compounds, their separation, purification and identification.		
<b>Natural Products-I</b>	<b>Course Code: PN703</b>	<b>Credit Hours: 2+0</b>
Natural products I is a specific discipline taught only at pharmaceutical faculties deals with the versatile studies of drugs and auxiliary substances of biological origin (plant and marine products) used in human. The aim of this course is to provide the student's information about the most recent medicinal plants used in the preparation of many drugs and present in the pharmaceutical markets. The student should be aware of the botanical origin, active constituents, pharmacological uses, folkloric uses, contraindications, side effects, interaction with other drugs, methods of preparation and their doses		
<b>Pharmaceutical &amp; Medicinal Chemistry-I</b>	<b>Course Code: PN704</b>	<b>Credit Hours: 3+0</b>
Medicinal chemistry is the application of chemistry in the context of human medicine. This course describes the physiochemical, stereo-chemical aspects of drug action and biotransformation chemical reactions of phase I and phases II. This course also describes the chemistry of pharmacophore and structure-activity relationship of several classes of drugs that affecting the cardiovascular system (cardiac glycosides, antianginal, antiarrhythmic and antilipidemic agents, anticoagulants, antiplatelets, and diuretics), cholinergic, adrenergic neurotransmission, and stimulating central nervous system. In this course, a student will gain knowledge about how the structure of a drug relates to its intermolecular drug-receptor interactions/biological activity and metabolism. Students will also gain knowledge about drug designing and synthesis of different classes of medicinal agents.		
<b>Natural Products-II</b>	<b>Course Code: PN705</b>	<b>Credit Hours: 2+1</b>
Natural Products II course provides the students with international guidelines for assessing the quality and the standardization of natural products according to WHO. In addition, the course introduces the pharmacy students to the concept of the drugs derived from natural resources according to their biosynthetic origin as well to impart an understanding of natural product structures and the way they are put together in living organisms. The students should be aware of different advanced methods of extraction, Isolation/identification, purification and standardization of the plant constituents. Examples of a secondary metabolite of medicinal values like volatile oil, glycosides, tannins and alkaloids with their therapeutic and toxicological activities are also discussed in this course.		
<b>Pharmaceutical &amp; Medicinal Chemistry-II</b>	<b>Course Code: PN706</b>	<b>Credit Hours: 2+1</b>
This course describes the medicinal chemistry of centrally acting drugs that includes opiate analgesics, nonsteroidal anti-inflammatory agents analgesic-antipyretics, sedatives-hypnotics, antiepileptics, general anaesthetics, psychotherapeutic drugs, antiparkinsonian and skeletal muscle relaxant. It also describes the drugs that affect neuronal transmission as local anaesthetics. In this course student will gain knowledge about how the structure of a drug relates to its physicochemical properties, intermolecular drug-receptor interactions lead to pharmacological activity and metabolism. Students will also gain knowledge and skills about drug designing, synthesis and analysis of different classes of medicinal agents.		
<b>Pharmaceutical &amp; Medicinal Chemistry-III</b>	<b>Course Code: PN707</b>	<b>Credit Hours: 3+0</b>
This course describes the medicinal chemistry of beta-lactam antibiotics, antimicrobial agents, antimalarial, antifungal, antiviral and antineoplastic agents. It also describes the drugs affecting the immune system as antihistamines and antiulcer		

<p>agents, the endocrine system as insulin and oral hypoglycemic drugs, steroid hormones and therapeutically related drugs (corticosteroids, sex hormones) and thyroid drugs. In this course student will gain knowledge about the development of lead compound and how the structure of a drug relates to its physicochemical-pharmacokinetic properties, drug-receptor interaction leads to biological activity and pharmacological-clinical uses.</p>		
<b>Instrumental Analysis</b>	<b>Course Code: PN708</b>	<b>Credit Hours: 2+1</b>
<p>This course is an introduction to modern instrumental methods of chemical and pharmaceutical analysis. It describes the theory of operation, instrument design and methodology, and applications of spectroscopic techniques of UV/VIS, Fluorescence, FTIR, AAS, MS, and NMR, and chromatographic methods that include gas and liquid chromatography. Laboratory includes the application of instruments in the analysis of chemicals, drugs, supplements and medicinal agents.</p>		
<b>Physical Pharmacy</b>	<b>Course Code: PC702</b>	<b>Credit Hours: 2+1</b>
<p>This course provides the student with good knowledge to study some physical pharmacy principles such as colligative properties and pH of solutions, isotonicity, buffer solutions, drug solubility and dissolution. The flow behaviour of liquids, physicochemical properties and stability of colloidal, and coarse dispersions, surface and interfacial tension, surface-active agents, particle wetting, and adsorption phenomena are also discussed.</p>		
<b>Pharmaceutics-I</b>	<b>Course Code: PC703</b>	<b>Credit Hours: 2+1</b>
<p>The course is designed to provide the students with the theoretical and practical formulation principles of conventional pharmaceutical dosage forms concerning types and functions of excipients, preparation techniques, formulation strategies, packaging, and stability of the final product. The course deals with liquid dosage forms such as aqueous and non-aqueous solutions, suspensions, emulsions, and sterile parenteral and ophthalmic dosage forms. Formulation basics of aerosols are also taught. The course also exposes the students to the recent formulation technology and innovations in pharmaceutical dosage forms and drug delivery systems.</p>		
<b>Pharmaceutics-II</b>	<b>Course Code: PC704</b>	<b>Credit Hours: 2+1</b>
<p>This course is designed to cover different pharmaceutical dosage forms, their properties, characterization and methods for the production of finished pharmaceuticals. It includes semisolid dosage forms, including creams, ointments, gels, and pastes. Furthermore, the course discusses topics related to solid dosage and modified solid dosage forms in terms of their production, manufacturing methods, machinery and evaluation of the final product. Also, It provides background knowledge in some advanced nanoparticles. The Lab component of this course is designed to provide extensive practical exposure in development &amp; evaluation of such dosage forms.</p>		
<b>Basic Genetic and Pharmaceutical Biotechnology</b>	<b>Course Code: PC705</b>	<b>Credit Hours: 3+0</b>
<p>This course is designed to provide knowledge about basic genetic concepts related to chromosomes and nucleic acids. It also delivers up-to-date information about different biotechnological processes (rDNA, hybridoma, and fermentation technology) involved in the development of therapeutic proteins, peptides, and gene products. It also discusses various issues related to the development and delivery of these stable biotechnological products in humans.</p>		
<b>Biopharmaceutics and Pharmacokinetics</b>	<b>Course Code: PC706</b>	<b>Credit Hours: 3+0</b>
<p>The major focus in biopharmaceutics will be concentrated on the various in vitro and in vivo factors that can affect drug performance in the body during the processes of liberation, absorption, distribution, metabolism, excretion with the purpose of evaluation of drug delivery systems, and the therapeutic management of patients. The pharmacokinetics section of the course provides a conceptual and quantitative background in pharmacokinetic theory and applications needed to pursue advanced studies in clinical pharmacokinetics.</p>		
<b>Pharmaceutical Technology</b>	<b>Course Code: PC707</b>	<b>Credit Hours: 2+1</b>
<p>The course is designed to provide students with proper knowledge in various aspects in the pharmaceutical technology including pre-formulation studies of solid dosage forms, manufacturing processes as granulation, drying and filtration. Packaging technology and its effect on medicine safety, effectiveness, and patients' compliance are also discussed. The course also focuses on the development of new drug delivery systems such as matrix solid dispersions, transdermal patches, and microspheres</p>		
<b>Pharmaceutical Calculations in Practice</b>	<b>Course Code: PC708</b>	<b>Credit Hours: 2+0</b>

The aim of this course is to provide clear instructions of calculations to pharmacy students and enabling them to perform flawless calculations accurately, which develops confidence in them. Since pharmacist use calculations regularly in their practice, it is vital that they are able to employ calculation skills precisely so as not to compromise patient safety. Students are revised for calculations in various pharmaceutical aspects including calculations applied in various pharmaceutical dosage forms as concentration expressions, reducing and enlarging formulas, alligation, reconstitution of powdered dosage forms and calculation involving in injectable medications. Students are trained to calculate the precise dose of drugs according to based on the patient's age, body weight, body surface area, in addition to dose adjustment for patients with hepatic and renal failure.

### CLINICAL SCIENCES (CS)

CLINICAL SCIENCES (CS)		
<b>Pharmacology &amp; Therapeutics-I</b>	<b>Course Code: CP701</b>	<b>Credit Hours: 3+1</b>
The course provides knowledge of the basic principles of pharmacokinetics and pharmacodynamics of medications and their therapeutic application. An in-depth discussion of concepts of importance in pharmacology is emphasized. The principles of the drugs affecting the autonomic nervous system are discussed. Autacoids and anti-inflammatory medications (NSAIDs & Corticosteroids) are also covered. Drugs used in respiratory disorders and management of bronchial asthma and COPD are approached from a therapeutic perspective.		
<b>Clinical Biochemistry</b>	<b>Course Code: CP702</b>	<b>Credit Hours: 2+1</b>
The course provides to the pharmacy students the knowledge and advances understanding of the metabolic pathways of different biomolecules and related clinical correlations in addition to the integration of metabolic reactions in different human tissues and different physiological and pathological conditions.		
<b>Social and Behavior Aspects in Pharmacy</b>	<b>Course Code: CP703</b>	<b>Credit Hours: 2+0</b>
The course introduces sociological, psychological, and behavioural aspects of pharmacy practice regarding patients' perspectives of health and illness, as well as their implications for pharmacists' roles. Variability in patients' individual needs and relationships with health care providers. It brings more knowledge of human behaviour to the students. It provides improved ways and means for students to learn about the nature of the multiple factors: social, culture & psychological, which affect the maintenance of health and the prevention of disease and disability. This will help in promoting health, preventing illness, restoring health and alleviating suffering.		
<b>Pharmacology and Therapeutics-II</b>	<b>Course Code: CP704</b>	<b>Credit Hours: 3+1</b>
The course deals with the principles of the common cardiovascular diseases describing the causes of hypertension, the major determinants that control coronary blood flow, and the aetiology of heart failure. Then, the course provides the clinical characteristics (mechanism of action, benefits, adverse effects, interactions, and contraindications) of beta-blockers, $\alpha$ -blocker, diuretics, vasodilators, calcium channel blockers, nitrates, ACE inhibitors, ARBs, cardiac glycosides and antiarrhythmics. Also, the course provides the clinical characteristics of peptic ulcer and inflammatory bowel disease. Finally, the pharmacologic benefits of medications in each disease, the management guidelines, treatment algorithms, and patient educations of the studied disorders are fully covered.		
<b>Alternative and Complementary Medicine</b>	<b>Course Code: CP705</b>	<b>Credit Hours: 2+0</b>
Alternative and Complementary Medicines course provides the students a broad range of complementary therapies and how these can be utilized to enhance health. The students will be able to locate and evaluate credible information about complementary therapies and wellness. This course also covers the treatment of different diseases by herbal therapy, dietary health supplements, aromatherapy, relaxation therapy, minerals and vitamins supply, acupressure, ayurvedic medicine therapy, homoeopathy and hydrotherapy.		
<b>Pharmacology and Therapeutics-III</b>	<b>Course Code: CP706</b>	<b>Credit Hours: 3+1</b>
This course is designed to provide students with a broad understanding of central nervous system pharmacology in addition to the pharmacology, pathophysiology, clinical pharmacokinetics and pharmacotherapy in major areas of endocrinology with special emphasis on the diabetes mellitus, thyroid disorders and osteoporosis. The course includes practical classes using case-based approaches related to the topics of this course. The course will be taught concurrently with Pharmaceutical and Medicinal Chemistry to offer the maximum benefit of integrated knowledge		
<b>Clinical Pharmacy and Pharmaceutical Care</b>	<b>Course Code: CP707</b>	<b>Credit Hours: 3+0</b>
This course provides the knowledge and experience that enables the students to understand and describe clinical pharmacy and pharmaceutical care practice aspects. This course aims to provide the students with the skills of treatment assessment, care plan developing and follow up evaluation. Also, the student will be provided with the skills of identifying different types		

of patients drug related needs, different types of drug related problems and taking a decision with ethical considerations in the practice of clinical pharmacy.		
<b>Pharmacy Practice</b>	<b>Course Code: CP708</b>	<b>Credit Hours: 3+1</b>
This course introduces students to various aspects of pharmacy practice. It covers the knowledge of minor diseases that can be managed by the pharmacist concerning aetiology, symptoms, diagnosis, treatment, management and counselling. Moreover, the student will learn the different types of over-the-counter (OTC) medications used for a variety of medical cases, such as respiratory and GIT systems, skin and dental care, ears, eyes, nose and throat (ENT) problems, as well as pain management. Further areas of learning are women's health, children's care, and smoking cessation. This course will also provide the student with professional communication skills needed to deal with patients in the hospital and community pharmacy settings during an OTC therapeutic dialogue.		
<b>Clinical Toxicology</b>	<b>Course Code: CP709</b>	<b>Credit Hours: 2+0</b>
The course is intended to empower students with basic knowledge of Clinical Toxicology. The major focus of the course is on basic principles, mechanisms, and common approaches for the management of poisoned patients. Selected topics are covered in this course that includes occupational, heavy metals and drug toxicities. Students will gain knowledge of how selected chemicals/drugs exert toxic effects, present and managed clinically.		
<b>Applied Pharmacokinetics</b>	<b>Course Code: CP710</b>	<b>Credit Hours: 2+0</b>
The course deals with the concepts of the clinical pharmacokinetics of certain drugs and calculation of doses of drugs during organ impairment and clinical transplant pharmacokinetics and therapeutic drug monitoring, drug administration, alteration of dosage form and doses based on individualization and population data, approach to therapeutic drug monitoring, a case study of drugs requiring therapeutic monitoring.		
<b>Pharmacology and Therapeutics-IV</b>	<b>Course Code: CP711</b>	<b>Credit Hours: 3+1</b>
This course is designed to provide students with an integrated knowledge of basic pharmacology of various classes of antibacterial, antiviral and antifungal agents. Focus is emphasized on the main indication of each antimicrobial, its significant adverse effect and precautions to avoid drug resistance. Furthermore, the course covers the management of selected infectious diseases based on evidence-based guidelines, including lower respiratory tract, urinary tract, CNS, invasive fungal infections as well as HIV. The last part of this course includes the most common rheumatologic disorders and drugs that are used in their management.		
<b>Pharmacogenomics</b>	<b>Course Code: CP712</b>	<b>Credit Hours: 2+0</b>
The goal of the course is to give students an understanding of the principles of human genetics and genomics as they apply it to find solutions in drug therapy optimization and patient care, thus providing a basic understanding of the discipline of pharmacogenomics. This course discusses the genetic basis of variability in drug response that contributes to drug efficacy and toxicity, adverse drug reactions and drug-gene interaction. As such, pharmacists need a thorough understanding of the genetic component of patient variability to deliver effective individualized pharmaceutical care.		
<b>Hospital Pharmacy</b>	<b>Course Code: CP714</b>	<b>Credit Hours: 2+0</b>
The aim of this course is to provide the students with knowledge of the principles of pharmacy practice in a hospital setting. It aims to enable students to gain knowledge to practice in various areas of hospital pharmacy including understanding the basic layout of the pharmacy department in a hospital setting; understanding the roles of the pharmacist in hospital practice including the distribution of medications, medication compounding, collaborations as a member of the healthcare team, and other patient care services, identifying and reporting any possible drug interactions and mastering the administrative part of hospital pharmacy services including drug distribution control system & unit Dose Systems.		
<b>Pharmacy Laws and Drug Regulations</b>	<b>Course Code: CP715</b>	<b>Credit Hours: 1+0</b>
The course covers various policies, laws & regulations related to pharmacy practice and pharmacy professionals dealing with licensing, pharmacy operations, controlled substances, and operations in institutions. A Brief overview of the legal system including nature and sources of UAE laws on practicing pharmaceutical profession and trading in a medicine profession.		
<b>Pharmacoepidemiology &amp; Pharmacovigilance</b>	<b>Course Code: CP716</b>	<b>Credit Hours: 2+0</b>
This is an introductory course, which equips students with a basic understanding of the concepts and practice of pharmacoepidemiology and pharmacovigilance in areas related to the assessment of drug safety and risk-benefit of drug use. This course will meet the needs of a wide variety of practitioners in detecting, managing, reporting of Adverse Drug Events/Reactions.		
<b>Integrated Problem Based Learning</b>	<b>Course Code: CP717</b>	<b>Credit Hours: 0+3</b>

<p>The course is clinically oriented to emphasize pharmacotherapy inpatient care. The students discuss different scenarios of patient cases where medical history, symptoms, clinical presentation and laboratory values are stated. The students are directed to raise the objectives of their study in order first to assess the possible drug-related problems, second to suggest possible solutions of these problems and finally to evaluate these solutions based on clinical evidence. This course will enhance the students' oral and written communication skills, and their abilities to extract information from medical records, search, sort, critically think and analyze drug-related information.</p>		
<b>Professional Skills in Practice</b>	<b>Course Code: CP718</b>	<b>Credit Hours: 1+2</b>
<p>The aim of this course is to provide the students with the knowledge of the various health care providers, rapidly evolving types of healthcare delivery systems, and complexities of relationships among the various health care professionals working within the health care system. Students should be aware of the basic clinical skills required by pharmacists to get the insight they need to cultivate informed, compassionate and effective patient care.</p>		
<b>Pharmaceutical management</b>	<b>Course Code: CP719</b>	<b>Credit Hours: 2+0</b>
<p>The aim of this course is to provide the students with the working knowledge and fundamental principles of management related to pharmacy practice leadership. During this course, students are exposed to various administrative skills, strategic planning, motivational theories and risk management, which enable them to efficiently manage health care sectors.</p>		
<b>Pharmacy Automation &amp; Informatics</b>	<b>Course Code: CP720</b>	<b>Credit Hours: 2+0</b>
<p>This course will be conducted in collaboration with automation industry to introduce the concept of automation in pharmacy like robotic pharmacy, use of mobile health tools, clinical software applications ("clinical apps"), and other associated devices used by clinicians and patients for patient care. This course acquaints with cyber-security systems and procedures for vulnerabilities. This course also supports key decision-making roles for pharmacists in the planning, selection, design, implementation, and maintenance of medication-use information systems, electronic health records.</p>		

### Professional Practice Experience (PPE) - Credit Hours: 24

<b>PPE01:</b> Introductory Professional Practice Experience for 200 hours during summer vacations in the second and third year of BPharm.
<b>PPE02:</b> Industrial Professional Practice Experience for 100 hours during the fourth year of BPharm.
<b>PPE03A &amp; PPE03B</b> Advanced Professional Practice Experience 740 hours during the spring semester of third and fourth years of BPharm.

### Capstone Project

<b>Capstone Project</b>	<b>Course Code: CS701</b>	<b>Credit Hours: 0+2</b>
<p>In the final phase of their studies, students have to present a project based on all-round knowledge they have acquired in different areas of pharmaceutical sciences. The presented project is evaluated, and the students are assessed for their knowledge by a panel of internal and external examiners.</p>		

### ELECTIVE COURSES

#### AREA I

<b>Organizational Behavior and Cultural Diversity</b>	<b>Course Code: EC7011</b>	<b>Credit Hours: 2+0</b>
<p>This course exposes students to behavioural science theories and applications in management. Organizational behavior is an interdisciplinary field drawing from numerous disciplines including psychology, sociology, economics, organization theory and many others. Organization behavior helps the student to learn the value-added of "soft" management interventions. Understand and articulate how culture, society, and diversity shape the role of the individual within society and human relations across cultures. In addition, the course aims to provide the students with an overview of the key concepts of strategic planning as a fundamental component of the Innovation &amp; Entrepreneurship.</p>		
<b>Emotional Intelligence and Leadership</b>	<b>Course Code: EC7012</b>	<b>Credit Hours: 2+0</b>

<p>The course is designed to enable students to equip with the knowledge, skills, perspectives, and attitudes to achieve desired leadership outcomes across the three EIL facets which are the consciousness of self, consciousness of others, and consciousness of context. Across three EIL facets are nineteen capacities. Through the idea of EI and leadership, this course provides students a framework, a toolbox, and a guide for seeing the unique capacity in themselves to make a difference in the lives of others.</p>		
<b>AREA II</b>		
<b>Nuclear Pharmacy</b>	<b>Course Code: EC7021</b>	<b>Credit Hours: 2+0</b>
<p>Nuclear pharmacy is a speciality area of pharmacy practise dedicated to the compounding and dispensing of radioactive materials for use in nuclear medicine procedures. This course covers basic concepts involved with radioactivity, different types of radiations, radiation dose, nuclear medicines, and diagnostic &amp; therapeutic applications of nuclear medicines.</p>		
<b>Bioassay</b>	<b>Course Code: EC7022</b>	<b>Credit Hours: 2+0</b>
<p>The course provides basics of tests applied in screening of new substances or herbal extracts. It also focuses on clarification of the basic concepts of biological assay of drugs based on their pharmacological classification. Experiments applied to assess many drug classes like autonomic-acting agents, antihistaminics, anti-inflammatory, antihypertensive agents, analgesics and neuroleptics are fully discussed.</p>		
<b>AREA III</b>		
<b>Nutrition and Health</b>	<b>Course Code: EC7031</b>	<b>Credit Hours: 2+0</b>
<p>Nutrition and Health course provides the pharmacy students basics of nutrition by discussing the nutrients, their function in the human body and their sources in the diet. This course gives the students an understanding of the causes behind health issue related to nutrition. The course makes the students aware of what to eat and how to choose healthy foods. The course also makes the students solve nutrition-related problems and make healthy food and nutrition decisions.</p>		
<b>Pharmaceutical GMP</b>	<b>Course Code: EC7032</b>	<b>Credit Hours: 2+0</b>
<p>This course provides a comprehensive overview of the Good Manufacturing Practice (GMP) in the manufacturing process and quality control testing of the pharmaceutical products. It covers various aspects of quality control and quality assurance as well as the industrial standards in the areas of the workplace, warehousing, production, packaging cleaning and sanitation, documentation and records archiving. GMP auditing, facilities and requirements to Good Laboratory Practice (GLP). The instructor will deliver the course contents by multiple learning activities such as didactic lectures, self-learning, class discussion and tutorials. At the same time, students' performance will be evaluated via different assessment instruments, including class activity, project and written exams.</p>		

## 9. Examination, Grading & Assessment

### Course Assessment

Each course is assessed as outlined in the course description form and can be further discussed with the course coordinator.

### Types of Assessment:

**Written Examination (Mid semester and Final exam):** Written examination assures that students have attained the appropriate knowledge related to the profession which can be applied in learning the skills. These exams measure the comprehension of students and their improvement.

**Oral exam:** The oral evaluation gives feedback from the students on how they see the relative importance of the different topics. The oral exam is suitable for many types of performance and for working with different competencies. If students' oral communication in a specific area or in general is essential, an oral exam is to be preferred.

**Practical and laboratory work:** The practical exam evaluates the skills gained by the student which they have learned in all over the practical sessions offered in the course. It identifies the student's level of performance while demonstrating well-developed skills.

**Assignment:** Assignments are evaluated through rubric scores based on different criteria's. It helps to measure the student's ability to understand the theoretical knowledge in depth. Assignments assess the student's ability to gather the information, processing, interpreting and drawing conclusions.

**Case study:** A specific and detailed description of an event, situation, or circumstance that is presented to a student for study and analysis.

**Scientific Poster:** A large, printed sheet intended for display and containing words, illustrations, or both to provide general or specific information for broad or targeted students.

**Herbarium:** A systematically arranged collection of dried plants.

**OSCEs:** A type of examination often used in health sciences. It is designed to test clinical skill performance and competence in a range of skills.

**Professional Practice Experience reports:** By the PPE reports the students develop observation and recording skills. Students' efficiencies can be measured through the submitted reports, which give the detail of students learning activities during the training.

**Article review and Presentation:** Students ability to appraise the literature will be assessed based on their interpretation and presentation of a research paper.

**Self- learning assessment:** Students develop their own list of characteristics and judge their own work. Students learn to monitor their own progress and will strive to improve.

**PBL:** Students active participation, involvement in the group discussion will be peer assessed and also assessed by the instructor. Observations will be recorded as a narrative and highly structured format, such as a checklist. Students knowledge applied in the problem-based discussions will be assessed through quiz (teaching and assessment methodologies are presented in the related course descriptor).

### **Capstone Project:**

A project submitted by the students in the fourth year of B. Pharm., based on all round knowledge they have acquired in the four main areas viz., Pharmaceutics, Pharmaceutical Medicinal Chemistry, Natural Products, Pharmacology, Therapeutics and Clinical. This project includes a research work, which the students carry out on recent developments in pharmaceutical sciences.

### **Examination Schedule:**

The students shall take their exams as per the schedule fixed by the College in the light of the following rules and regulations: Final exams will be held at the end of the semesters (Fall and Spring), on completion of the prescribed syllabus.

### **Re-sit Exams:**

- Re-sit exams for all the subjects considered necessary shall be held at the end of the second semester within a week after the declaration of the examination results.

- Not more than one re-sit exam for any subject shall be allowed within one academic year.

### Course Grading System:

Students are assigned grades (letters) for each course in which they have enrolled. The letter reflects the student's achievement in the course. The minimum grade for passing a course is letter (D) and grades are written in letters according to the following table:

Range of Marks	Grade Point	For BPharm	
		Evaluation	Grade Symbol
95- 100	4	Outstanding	A+
90 – 94.99	3.75	Excellent	A
85 – 89.99	3.50	Very Good	B+
80 – 84.99	3.00	Good	B
75 – 79.99	2.50	Satisfactory	C+
70 – 74.99	2.00	Pass	C
65 – 69.99	1.5	Unsatisfactory	D+
60 – 64.99	1.0	Unsatisfactory	D
Below 65	Failed	Failed	F
Administrative Codes			
Incomplete		I	
Withdraw		W	

### Computation of the Cumulative Grade Point Average (CGPA) and Grade Point Average (GPA)

- The GPA is calculated by multiplying the grade of each course by the number of its credit hours and dividing the total by the number of total credit hours taken in a semester.
- The CGPA is calculated by multiplying the grade of each course by the number of its credit hours and dividing the total of all courses by the number of total credit hours taken for all semesters.
- By contrast, the GPA is the average of grade points of all courses in one semester, whether she passed or failed the course.
- As mentioned earlier, the CGPA is the average of grade points of all courses in all semesters.
- Both GPA and CGPA are rounded to the nearest decimal units. GPA and CGPA are calculated according to the following formula

<b>GPA =</b>	Total (credit hours per course x grades received per course) for all courses taken in one semester
	Total credit hours for all courses taken in one semester
<b>CGPA =</b>	Total (credit hours per course x grades received per course) for all the courses taken in all semesters
	Total credit hours for all the courses taken in all semesters

GPA / CGPA	B. Pharm
	Evaluation
3.75 - 4.00	Outstanding
3.74 - 3.60	Excellent
3.00 - 3.59	Very Good
2.50 - 2.99	Good
2.00 - 2.49	Satisfactory
Less than 2.00	Unsatisfactory

## Incomplete Grades

1. A student who is unable to attend the final exam of any course because of extenuating circumstances such as serious illness, accident or death of a family member during the final examination period seeks an incomplete grade "I" for the course.
2. Grade "I" is granted to the student if the average marks of the course work is not less than 60%.
3. Requests for an "I" grade is made on a form available from Dean's office
4. Unless otherwise stated on the form, the work required to remove an "I" grade is to be completed no later than the end of the second week of the next semester in which the student registers at the university. Otherwise, a grade of "F" is recorded.
5. (For Credit System students only) after the two weeks add/drop period, and up to the end of the 10<sup>th</sup> week of a semester, students may choose to withdraw from a course without academic penalty; however, a grade of "W" will appear on the student's transcript.

## DISCIPLINARY MEASURES

Violation of the examination rules, attempts of misleading conduct, disturbing behaviour or disruption of the examination will be reported to the Disciplinary committee. Disciplinary measures may be imposed, singly or in combination, for non-academic misconduct include, but are not limited to, the following:

**(a) Warning or reprimand** – a written warning or reprimand to the student will be issued in case of inappropriate behavior

**(b) Debarring or cancellation**– If caught cheating (first time) the student will be debarred from taking all the paper of the applicable exam; for e.g., mid-term or finals respectively. All the exams undertaken by the candidate will be cancelled.

**(c) Suspension from the College** – If caught cheating (second time), will result in suspension of the student from the College for a specified period of time of two months after which the student is eligible to return. Conditions for readmission may be imposed.

**(d) Expulsion from the College** – If caught cheating (third time), Expulsion of the student from the College.

## ENSURING ACADEMIC INTEGRITY AT DPCG

Current college policies prohibit dishonesty, such as cheating, plagiarism, or knowingly furnishing false information to the college. DPCG's recommended discipline process with regard to plagiarism and cheating is available from the Office of the Chief Academic Officer (BPharm) / Program Director (MPharm). Course syllabi should reference the process.

1. When addressing plagiarism or cheating with reasonable evidence, the faculty member should notify the student of the concern.
2. In situations where cheating or plagiarism has occurred, the faculty member is to determine consequences in compliance with DPCG policy and regulations, which prohibit dropping a student from a course. The consequences may be any of the following options:
  - giving the student a verbal or written warning giving the student an additional assignment
  - giving the student a zero on the assignment
  - determining other appropriate consequences that comply with DPCG's policy and regulations
3. In such situations the faculty notifies the student that a "**Student Code of Conduct Violation**" form (DP-F-01) will be filed in the Dean's Office.
4. Students have the right to grieve an action that they feel violates their student rights.
5. The office of the Student Affairs shall be responsible for maintaining records.
6. Probation, suspension or expulsions are courses of action that may be determined by the Dean , in accordance with Student Disciplinary Committee.

## 9.1.Scheme of Assessment

Semester	Code	Domain	Courses	Lecture	Practical	Total Units	Assessment Tools																			
							Quizzes	Oral	PBL assessment	Class activity/continuous	Case based assessment	Assignment	Symposium(presentation)	Poster	Herbarium	Project Report	Self-learning	Homework	OSCEs	Article review	Mid Semester	Practical				Final Exam
																						Exam	Attitude &	Manual	Attendance	
Fall Semester	PN701	PS	Pharmaceutical Organic Chemistry- I	2	0	2	10	10			15									25					40	
	MC701	BBS	Anatomy and Physiology I	2	0	2	10	10				15								25					40	
	GE701	GE	Mathematics & Statistics	2	0	2	10				10							15		25					40	
	GE702	GE	English Communication and Critical Thinking Skills	2	1	3						15	10							10	25					40
	MC702	BBS	Medical Terminology	1	0	1	15													25					40	
	GE703	GE	Computer Application	0	2	2	10				10		15							25					40	
	PC701	GE /PS	Introduction & History of Pharmacy	2	0	2	10	10					15							25					40	
Spring Semester	GE704	GE	Islamic Study	2	0	2	10				10		15							25					40	
	GE705	GE	Positive psychology	2	0	2	10	10					15							25					40	
	PN702	PS	Pharmaceutical Organic Chemistry- II	2	1	3	10				15									20	15	3	4	3	30	
	PC702	PS	Physical Pharmacy	2	1	3	10						15							20	15	3	4	3	30	
	MC703	BBS	Anatomy and Physiology-II	2	1	3	10						15							20	15	3	4	3	30	
	PN703	PS	Natural Products-I	2	0	2	10	10								15				25					40	
Summer	GE706	GE	Arabic Language Skills	2	0	2	10				10		15							25					40	
	GE707	GE	UAE Society	2	0	2	10				10		15							25					40	
Fall Semester	PN704	PS	Pharmaceutical & Medicinal Chemistry - I	3	0	3	10				15		15							30					30	
	PN705	PS	Natural Products-II	2	1	3	10							15						20	15	3	4	3	30	
	MC704	BBS	Biochemistry	2	0	2	10	10					15							25					40	
	GE708	GE	Environmental Sustainability	2	0	2	10						10	15						25					40	
	PC703	PS	Pharmaceutics- I	2	1	3	10						15							20	15	3	4	3	30	
	MC705	BBS	Medical Microbiology	3	1	4	10						15							20	15	3	4	3	30	
Spring	PN706	PS	Pharmaceutical & Medicinal Chemistry - II	2	1	3	10													20	15	5	5	-	30	
	CP701	CS	Pharmacology and Therapeutics- I	3	1	4	10					10	15							20	10	1	2	2	30	
	MC707	BBS	Pathology	2	0	2	10	10					15							25					40	

Semester	Code	Domain	Courses	Lecture	Practical	Total Units	Assessment Tools																			
							Quizzes	Oral	PBL assessment	Class activity/continuous	Case based assessment	Assignment	Symposium (presentation)	Poster	Herbarium	Project Report	Self-learning	Homework	OSCEs	Article review	Mid Semester	Practical				Final Exam
																						Exam	Attitude &	Manual	Attendance	
	CP702	CS	Clinical Biochemistry	2	1	3	10				15							20	15	3	4	3	30			
	MC706	BBS	Immunology	2	0	2	10	10			15							25					40			
	PC704	PS	Pharmaceutics-II	2	1	3	10				15							20	15	3	4	3	30			
Summer	CP703	CS	Social and Behavior Aspects in Pharmacy	2	0	2	10	10										25					40			
	EC7011 EC7012	EC	Elective area I	2	0	2					50												50			
Fall Semester	PN707	PS	Pharmaceutical & Medicinal Chemistry-III	3	0	3	10	10				15						25					40			
	PC707	PS	Pharmaceutical Technology	2	1	3	10				15							20	15	3	4	3	30			
	CP704	CS	Pharmacology and Therapeutics- II	3	1	4	10				10	15						25	10	1	2	2	25			
	PC706	PS	Biopharmaceutics and Pharmacokinetics	3	0	3	5	5				15				15		30					30			
	PC705	PS	Basic Genetic and Pharmaceutical Biotechnology	3	0	3	10	10				15						25					40			
	CP705	CS	Alternative and complementary medicines	2	0	2	10	10				15						25					40			
Spring Semester	CP706	CS	Pharmacology and Therapeutics- III	3	1	4	10				10							20	10	1	2	2	30			
	CP707	CS	Clinical Pharmacy and Pharmaceutical Care	3	0	3	10	10				15						25					40			
	CP708	CS	Pharmacy Practice	3	1	4	10					15						20	15	3	4	3	30			
	CP709	CS	Clinical Toxicology	2	0	2	10	10				15						25					40			
	CP710	CS	Applied Pharmacokinetics	2	0	2	10	10				15						25					40			
	PN708	PS	Instrumental analysis	2	1	3	10					15						20	15	5	5	-	30			
Summer	EC702 EC7022	EC	Elective area II	2	0	2						50											50			
	EC7031 EC7032	EC	Elective area III	2	0	2						50											50			
Fall	CP711	CS	Pharmacology and Therapeutics- IV	3	1	4	10				15							20	10	1	2	2	30			
	CP712	CS	Pharmacogenomics	2	0	2	10	10				15						25					40			
	CP713	CS/GE	Research Methodology & Biostatistics	2	0	2												50					50			

Semester	Code	Domain	Courses	Lecture	Practical	Total Units	Assessment Tools														Final Exam							
							Quizzes	Oral	PBL assessment	Class activity/continuous	Case based assessment	Assignment	Symposium(presentation)	Poster	Herbarium	Project Report	Self-learning	Homework	OSCEs	Article review		Mid Semester	Exam	Attitude &	Manual Attendance			
Spring Semester	CP714	CS	Hospital Pharmacy	2	0	2	10				10						15						25					40
	CP715	CS	Pharmacy Laws and Drug Regulations	1	0	1											50											50
	CP716	CS	Pharmacoepidemiology & Pharmacovigilance	2	0	2	20										40											40
Spring Semester	GE709	GE	Innovation and Entrepreneurship	2	0	2											15	10										40
	CP717	CS	Integrated Problem Based Learning	0	3	3	15	15	30									30			10							
	CP718	CS	Professional Skills in Practice	1	2	3				10							20						30					40
	CP719	CS	Pharmaceutical Management	2	0	2	10										15											40
	CP720	CS	Pharmacy Automation and Informatics	2	0	2	10										25											40
	PC708	PS	Pharmaceutical Calculations in Practice	2	0	2	10										20											40
	CS701		Capstone Project	0	2	2		25									50				25							-

## 9.2.Seminar Rubrics

Student Presenter: \_\_\_\_\_

Grading Scale:

Evaluator: \_\_\_\_\_ Date: \_\_\_\_\_

F	D+	C	C+	B	B+	A	A+

Knowledge & content	1 (below 40)	2 (40-60)	3 (60-80)	4 (80-100)	Score
Organization and Presentation	Hard to follow; sequence of information jumpy	Most of information presented in sequence	Information presented in logical sequence; easy to follow	Information presented as interesting story in logical, easy to follow the sequence	
Background Content	Material not clearly related to topic background dominated seminar	Material sufficient for clear understanding but not clearly presented	Material sufficient for clear understanding AND effectively presented	Material sufficient for clear understanding AND exceptionally presented	
Contribution of Work	Significance not mentioned or just hinted	Significance mentioned	Significance explained	Significance exceptionally well explained	
Knowledge of Subject	Does not have a grasp of information; answered only rudimentary questions	At ease with information; answered most questions	At ease; answered all questions but failed to elaborate	Demonstrated full knowledge; answered all questions with elaboration	
<b>Presentation Skills</b>					
Graphics (use of PowerPoint)	Uses graphics that rarely support text and presentation	Uses graphics that relate to text and presentation	Uses graphics that explain text and presentation	Uses graphics that explain and reinforce text and presentation	
Mechanics	The presentation has more than 10 misspellings and/or grammatical errors	The presentation has no more than 5 misspellings and/or grammatical errors	Presentation has no more than 2 misspellings and/or grammatical errors	The presentation has no misspellings or grammatical errors	
Eye Contact	Reads most slides; no or just occasional eye Contact	Refers to slides to make points; occasional eye contact	Refers to slides to make points; eye contact majority of the time	Refers to slides to make points; engaged with the audience	
Elocution - not ability to speak English language	Mumbles and/or Incorrectly pronounces some terms	Incorrectly pronounces some terms	Incorrectly pronounces a few terms	Correct, precise pronunciation of all terms	
Intonation	Voice is low; challenging to hear	Voice fluctuates from low to clear; difficult to hear at times	Voice is clear with few fluctuations; the audience can hear well most of the time	Voice is clear and steady; the audience can hear well at all times	
Length and Pace	Short; less than 30 min	Short 40 min OR long >50	Adequate 40-45 min	Appropriate (45-50 min)	
	Rushed or dragging throughout	Rushed or dragging in parts	Seminar mostly well-paced	Well-paced throughout	

## 10. Teaching Activities (Pedagogy)

### 1. Integrative Methods

**Lecture** — An oral presentation, usually formal in nature, to a group by an individual highly knowledgeable about the subject.

**Brainstorming** — A process in which students are encouraged to participate by sharing their ideas or suggestions on a subject. No discussion of each point is allowed until important ideas have been expressed.

**Group Discussion** - A small group comprising of not more than 10 students with each faculty member to discuss on subject related topics.

**Office Visit** — A face-to-face exchange of information among two or more students, usually at the location of the information provider.

**Tutorial**- A period of instruction given by a College tutor to the student.

### 2. Reinforcement Methods

**Problem-based learning (PBL)** is a student-centred instructional strategy in which students collaboratively solve problems and reflect on their experiences. Student-focused problem-based learning is a self-directed process characterized by the active acquisition of knowledge and problem-solving skills by students that occurs from the process of reasoning towards the understanding or resolution of problems. It results in a usable knowledge database that has been actively acquired and is reinforced through repeated applications. Students are motivated by the internalized reward of discovery and develop a colleague based learning that will produce pharmacists who have learned to learn and have the ability to apply their knowledge base to the resolution of new and unique problems.

**E learning and Computer software's**- Use of electronic education technology and a set of instructions or program, that enables a computer to be used to provide educational information, to transmit communication or to aid in decision making.

**Self-Directed-Learning**- Since self-directed learning is believed to promote lifelong learning so students are motivated to take up self-learning exercises and are also encouraged to make presentations on allotted topics during the regular lecture schedules.

**Symposium** - An assembly in which a small number makes short presentations of speakers who are knowledgeable about a particular subject. These presentations may range from 20 to 30 minutes each.

**Group Discussion** - A small group comprising of not more than 10 students with each faculty member to discuss on subject related topics

**Panel Discussion**— A gathering at which a panel of individuals discuss a subject in front of students but interact with student members only when those members wish to ask a specific question or clarify a point under discussion. When a particular point is resolved, the organized discussion among panel members continues.

**News Letters** — A publication of six pages or fewer, focusing on a broader topic related to the subject that presents instructions, guidelines, or other specific information.

**Scientific Poster** — A large, printed sheet intended for display and containing words, illustrations, or both to provide general or specific information for broad or targeted students.

**Leaflet or flier** — Brief, concise printed information focused on a specific program, objective, current event, or other activity and designed to create or enhance awareness.

**Pamphlet or booklet** — A printed publication that provides more comprehensive information on a subject than a fact sheet, leaflet, or flier

**Journal club** — A means of presenting scientific, theoretical, or philosophical information in a professional journal or in a periodical that focuses on a specific discipline, commodity, student, or subject matter.

### 3. Practical Methods

**Method demonstration:** An explanation of how to implement a practice or accomplish a task by showing a practical application or guiding the learner in carrying out the task.

**Result demonstration:** A presentation that shows the effects of a practice change or task by means of practical application, using visual, experiential, or oral methods; it usually involves a before-and-after comparison.

**Field trip:** A planned activity of one-day duration in an outdoor setting for demonstrations; observation of programs, practices, activities, or objects; presentations; or practical experiences.

**Workshop:** A meeting in which a small group of people with common interests meet to study or research a specific topic or to practice a specific skill to enhance their individual knowledge and proficiency.

**Role play:** An exercise in which selected members of a group are assigned to play specific roles in a hypothetical or simulated situation followed by discussion among all group members.

**Case study:** A specific and detailed description of an event, situation, or circumstance that is presented to a student for study and analysis.

**Practical Exercise: Statistical Analysis of Data or results** — Evaluation, use, or presentation of new or existing data to explain or predict the impact of practice, innovation, input change, or changing conditions and circumstances

**Professional Practice Experience-(PPE):** Professional Practice Experience (PPE) is the experience gained during the training period in community pharmacies, hospitals and pharmaceutical industries.

#### **Capstone Project:**

A project submitted by the students in the fourth year of B. Pharm., based on all round knowledge they have acquired in the four main areas viz., Pharmaceutics, Pharmaceutical Medicinal Chemistry, Natural Products, Pharmacology, Therapeutics and Clinical Pharmacy. This project includes a research work, which the students carry out on recent developments in pharmaceutical sciences.

### **Facilities for Teaching**

Dubai Pharmacy College for Girls has excellent teaching facilities for students. It has four lecture rooms which are equipped with a video projector, computerized digital whiteboard, smart-board a Lap-top, on-line computer and audio-visual facilities. For quizzes and assessment of the student, learning clickers are used in classrooms. DPCG established a virtual learning environment (VLE) available through the Desire2Learn platform, namely Learning Management System (LMS). Most of the exams are conducting online using respondus lockdown browser in Learning Management System (LMS) and Zoom monitoring. The students also use the LMS for the submission of the assignments or any other activities and they can check for the plagiarism for their reports by using Turnitin in LMS. The faculties and the students are trained to use the LMS efficiently. Lecture notes are posted on LMS in PowerPoint or Microsoft Word or PDF formats at least 24 hours in advance, so the students are expected to read over the lecture material prior to coming to class. The students have access to the LMS through user name and password so that they can communicate with the instructor at any time. Besides these, the College also provides printed hand-outs or notes for the offered courses before the beginning of the next semester so that the students when they join the College should come well prepared in advance.

## **11. Progress Policy Guidelines**

### **Satisfactory Progress**

A student must maintain a semester GPA of 2.00 to be considered making satisfactory progress.

### **Probation**

Students who fail to achieve a semester GPA of 2.00 shall be placed on probation for one semester. If the student achieves a semester GPA of 2.00 or better during the probationary semester she makes satisfactory progress but has not achieved the required semester GPA of 2.00, the student may continue on probation for one additional semester and will be allowed to appear in the supplementary exams held in September each year for both semesters.

### **Unsatisfactory Progress**

If the student on probation fails to achieve a semester GPA of 2.00 at the end of the first probationary semester, the student will be reported to the Dean as making unsatisfactory progress. The student will be permitted to remain on probation for one additional semester.

A student who fails to achieve a semester GPA of 2.00 at the end of the second consecutive probationary semester shall be reported by the Examination and Evaluation Unit to the Dean's Office as making unsatisfactory progress.

**Note:** If a student fails to obtain the GPA 2.0 (70%) then she should repeat the course(s) in which unsatisfactory grades (D/D+) are got. In case, failing to improve the grades even after repeating the course(s) those students will be dismissed from the College.

## 12. Policy for Completion of Undergraduate

**A student will be awarded a Bachelor of Pharmacy (B.Pharm) degree subject to fulfilling the following requirements:**

- **Completion of all courses, Professional Practice Experience and Students Graduation Project**  
Students enrolled in this program are exposed to a core professional curriculum that includes the basic biomedical sciences; pharmaceutical sciences; and clinical sciences in addition to general education and elective courses.  
  
The curriculum, which is offered through 164 credit hours (CH), is organized to include 111 CH core requirement courses, 6 CH elective courses and 21 CH general education courses, 24 CH of Professional Practice Experience and 2 CH Capstone Project.
- **Maintain a CGPA of at least 2.0 on a 4.0 scale.**
- **Minimum and maximum periods of enrolment for the completion**  
The minimum duration required for completion of the BPharm program is 4 years, and the maximum period should not exceed 6 years.

## 13. Student Rights & Responsibilities

### Statement of Student Rights and Responsibilities

Every student who enrolls at DPCG has a right to a student-centered education, research and services. Students should positively contribute to the safe learning environment by maintaining high standards of integrity and academic honesty at the same time, familiarizing themselves with and adhere to all policies and regulations of the College.

### Student Rights

For a registered student in Dubai Pharmacy College for Girls, the rights are:

1. Obtain pharmacy education according to a well-established educational program and in a suitable educational environment.
2. Attend theory and practical classes regularly and to participate in scientific discussions held in the class as directed by the faculty.
3. Participate in all students activities sponsored by the Student Union.
4. Benefit from facilities offered by the College such as a library, hostel, transportation and others.
5. Get the identity card issued annually from the College after payment of its fees in order to prove that she is a student in the College.
6. Appear in all examinations and evaluations conducted according to the regulations of the College.
7. Get health care facility in case of emergency and first aid only. The College will not be responsible for expenses of treatment in any case, and only transportation can be provided to and from medical clinics in Dubai.
8. Get social care services offered by the College.
9. Have a residence visa sponsored by the College for hostel students as per the rules. The student will bear all expenses for her residence visa.
10. Get the following certificates from the College:
  - a. An annual certificate to prove that she is studying in the College

- b. A certificate to prove her academic level which she obtained as per the College records
- c. A certificate for the expenses required for her College study
- d. A certificate for her good behaviour and discipline in the College
- e. A graduation certificate after she fulfils all the requirements needed for graduation as per College rules
- f. A release certificate from the College

**Note:** All the certificates mentioned above in (10 a to f) should be issued as per the College rules and also according to the requirements of the student. The first copy of all certificates issued will be free of charge. If the student needs another copy, then it will be given by charging a nominal fee fixed by the College. But photocopies (like the original) of certificates will be given free of charge.

### Student's Responsibilities

The duties of the students are:

1. Do her best to achieve the goals set by the College, as mentioned in the regulations of the College.
2. Do her best to achieve a high level of scientific and educational standard. To achieve the desired level, she should not hesitate in taking help from the administration, the Dean and staff members of the College so that there is no hindrance in her way.
3. Follow all the rules and regulations of the College for academic and scientific activities.
4. Participate positively in evaluating the College development and performance by giving advice and written suggestions to the College administration in the questionnaire annually or by other means.
5. Handle all the properties of the College like instruments, equipment etc., carefully.
6. Be cooperative in adopting all the College principles, especially the following:
  - (a) To wear Islamic *Hijab*
  - (b) To be punctual in offering prayers
  - (c) To maintain a good relations with her colleagues
7. Inform the College administration or the Dean about misbehaviour or any mistakes committed by any student, which may give a bad reputation to the College.
8. Pay the fees regularly as required by the College.
9. All the students must follow the rules relating to attendance, and any non-compliance will lead to consequences mentioned in the attendance policy mentioned in the Student Handbook.

## 14. Student Appeals Policy

Every student has the right to put across her appeal within fifteen days. The appeal is addressed to the Dean. If it is not resolved properly, then the student can appeal to higher authorities of the College Administration. The decision given by them will then be considered as the final decision. Appeals are limited to requests to continue in the BPharm program after being dropped from the program for academic reasons and dissatisfied course grades.

## 15. Students Grievance Policy

### Informal Resolution:

Any student in DPCG who believes that she has been treated inequitably is encouraged to resolve the matter informally. The student should first talk with the person or group at whom the grievance is directed in an attempt to resolve the issue informally.

### Grievance Procedure:

The grievance procedure is described below.

1. To initiate the formal grievance procedure, the student must submit her grievance, in writing, to the Dean of DPCG.
2. The written grievance shall include:
  - a. a statement that the student wishes a review of the situation by a Grievance Committee.
  - b. the identification of the person or group at whom the grievance is directed;
  - c. the specifics of the perceived inequitable treatment;
  - d. evidence in support of the student's belief that she has been treated inequitably.
3. A grievance must be initiated no later than 15 calendar days from the time the student knew or could reasonably have been expected to have known of the circumstances giving rise to the grievance.
4. After receiving the grievance, the Dean will study the case with the Disciplinary Committee of the College.
5. After inquiry, the report shall be notified to the Student about the action on the grievance and the grounds for the action taken.
6. If the grievance is not resolved properly, then the student can appeal to higher authorities of the College Administration. The decision given by them will then be considered as the final decision.

## 16. Education Support Facilities

Dubai Pharmacy College for Girls (DPCG) provides all educational support facilities to its students. The students get the best scientific training and knowledge which will make them eligible as pharmacists to boost the vast scientific and industrial development of U.A.E.

### COLLEGE BUILDING

The College building, on the ground floor, has 2 laboratories, administrative and faculty offices, a meeting room, examination control room and a reception section. On the first floor, are housed one laboratory, four lecture rooms, student's affair office, student advisory office, students' common room, students printing office and chemical and glassware store. In addition, the DPCG extension including 2 laboratories, a model pharmacy with a drug information center, LMS examination Hall equipped by computer, main examination hall, animal house and the main library. Besides the above facilities, the College is supported by a Machine Room (Industrial unit) situated in the Lootah's Educational Campus for conducting training and practicals in Pharmaceutics-I & II and Pharmaceutical technology courses.

### LABORATORY AND INSTRUMENTATION FACILITIES

DPCG possesses well-equipped laboratories for each discipline. There are five laboratories in the College premises equipped with scientific apparatus and equipment required for practical and scientific investigations. Some laboratories are in Dubai Medical College and are common to both the Colleges. The laboratories are:

Dubai Pharmacy College for Girls	
Ground Floor	First Floor
Pharmaceutics Laboratory	Research Laboratory
Instrumental Analysis Laboratory	Cell Culture Laboratory

DPC Extension	Dubai Medical College
Pharmaceutical Chemistry Laboratory	Microbiology Laboratory
Pharmacology Laboratory	Anatomy Laboratory
Pharmacy Practice Laboratory	Biochemistry Laboratory
	Pathology Laboratory
	Physiology Laboratory

### AUDITORIUM

A well-furnished auditorium, located in DMCG, is spacious and suitable for any cultural occasion. It has become a regular venue for all social and cultural activities of DPCG.

### STUDY ROOMS

DPCG provides study room facilities for its students, which may be utilized by them in their break hours and also by hostel students after the class hours. These study rooms are located in DMCG and are well furnished with all the required facilities. The students have easy access to these study rooms and are free to use all facilities present there like computers with Internet and Journals.

### LIBRARY

The Library in DPCG offers an excellent environment for study. It is available to students at various stages of the study. The library working hours are arranged as far as possible to meet students' need. The library has subscribed e-Journals in various areas of Pharmacy and Medical Sciences. The physical facilities in the library are adequate space given for housing the collection of books, journals, and audiovisuals. There is also a large reading room to facilitate learning. Students have access to computer terminals to search on-line catalogues, databases, and other information systems. The library is also equipped with photocopying machines, study rooms that allow the students to study individually or in group.

#### Opening hours:

Sunday - Thursday	7.30am – 3.00pm
Friday	8.00am – 1.00pm
Saturday	9.00am – 3.00pm

### COMPUTER LABORATORY

The Computer Laboratory is helpful in the teaching of English language, computer science, pharmacy practice, pharmaceutical care, therapeutics and clinical pharmacy courses. The Computer Laboratory, well equipped with computers, have Internet connections along with auditory systems. Besides this Computer Laboratory, the College enjoys full technical guidance, support and know-how from the Information Technology (IT) department, which is its sister organization and is adjacent to DPCG campus.

The mission of the I.T. department is to provide computer support, awareness and training services throughout the year to faculty, administrative staff and students. It also has a laboratory which is well equipped and is freely available for use. It is monitored by well-qualified staff to render help and assistance.

### ACCOMMODATION FACILITIES

DPCG provides hostel facility for students who apply for it. It is close to the College and has well-furnished bedrooms, dining room, study room and all the required facilities. Besides these facilities, internet connection is available in each room to aid them in preparing their notes and seminars. On each floor of the hostel, there is a provision for praying and a gymnasium club. Students can obtain advice on accommodation from the hostel Supervisor.

### HEALTH CARE FACILITIES

The College arranges to provide health care facilities to students living in the hostels. DPCG has a contract

for health care with its sister organization Dubai Medical Centre (DMC) and Dubai Medical University Hospital. DMC doctors do periodical checkup for all the students. Those found ill are taken care of by them. In severe cases, the hostel authorities send the resident students to Dubai Government hospitals.

### **STUDENT COUNSELING SERVICES**

Students who experience personal, emotional and social difficulties and may need counseling or support. DPCG provides students with counseling services through a trained student counselor who helps them to cope up with a wide variety of student matters.

### **TRANSPORTATION FACILITIES**

DPCG has special minibuses for transporting students from Sharjah, Ajman, Dubai and hostel. These buses are fully air-conditioned and quite comfortable. They are used for field trips and educational tours too.

### **MOSQUES**

The College has mosques inside its campus for faculty, staff and female students which sustains the Islamic atmosphere in the College.

### **DINING SERVICES**

Cafeteria adjoining the College is spacious and hygienic. It offers food and beverages of students' choice. Thus it's a rendezvous for students to relax and enjoy during breaks.

### **RECREATIONAL FACILITIES**

In the campus, there is a swimming pool, basketball court and gymnasium club. These facilities help the students in maintaining proper physical fitness.

### **BOOKSHOP**

There is a bookshop in the College which sells textbooks at subsidized rates of various subjects taught in the College. The bookshop also provides services on photocopying at a minimal charge.

## **17. Students' Support Services**

### **STUDENT UNION**

There is a "Students' Union" consisting of members from the student community elected from all years of BPharm. The elections are held regularly at the beginning of each academic year.

The Student Union serves as the principal student programming organization at DPCG. It is responsible for providing a balanced program of social, religious, recreational and cultural activities for the College, aiming to make free time activity a cooperative facet with the study. The Student Union also helps to maintain close links between the College administration, faculty, and the students which are essential for the efficient functioning of the College.

### **ACADEMIC ADVISING AND MENTORING**

Students are allotted a faculty member for academic advising / mentoring. The Faculty-Advisor who is assigned to a study group of students; guides in matters pertaining to their study plan, student development, the curriculum and other academic affairs. The advisor helps the student to organize her study plan and supervises its implementation and assists her in overcoming any difficulties related to it.

Faculty-Advisor identifies students making unsatisfactory progress in each class, and remedial classes are arranged to improve their GPA. He/She also advises the student about the introduction of the credit hour system and its requirements for graduation to obtain a Degree in Pharmacy.

Faculty Advisors will maintain a student record based on student's dress code, attendance in classes, academic performance (GPA/ CGPA) and conduct in College.

They also provide information about programs, services, facilities and involvement opportunities that support academic success and lifelong learning, which facilitate responsible life choices, and promote awareness of self and community. It has a specific mission but one common goal: to provide academic advising, outreach and support.

### **STUDENTS COUNSELING SERVICES**

DPCG provides students with counseling services through a trained student counselor. She provides personal counseling to the students concerning their personal, social and moral problems, which may cause hindrance in the way to the students' success. The personal counseling to students is provided by prior appointment with the Counselor during the College working hours.

Periodically, group counseling sessions are also arranged in each academic year. The announcement of such sessions, giving the time, date and venue, is made via the College bulletin boards. Make it a habit to attend these counseling sessions on the due dates.

### **STUDENTS CAREER PLANNING SERVICES**

DPCG provides career counseling to its students regarding career information and planning, career development, testing and prospective job placement. DPCG also provides assistance to develop the different skills necessary to start a career in various Pharmaceutical settings.

Career Guidance sessions at DPCG are provided to the 4th year BPharm students on individual and/group basis with prior appointment with one of the personnel; Dean, Head of Alumni Affairs / Head of Professional Practice Experience Unit. They guide the students about the availability of the opportunities to help them decide on their future plans. They will serve to ensure the:

1. Preparation for MOH exams.
2. Self-improvement program for career development.
3. Availability of Jobs in different fields of Pharmacy practice.
4. Counseling for postgraduate and further studies.

## **18. Glossary of Terms**

### **Unit System**

DPCG uses the course unit system which is based on the required number of hours of instruction to be successfully completed according to the standards set by the College to obtain University degree i.e. Bachelor of Pharmacy.

### **Credit Hour**

Credit hour refers to one lecture hour per week lasting for minimum 15 weeks. Each lecture hour is equivalent to two hours of practical study per week.

### **Course**

Each course is a program of study presented in lectures and practical with a fixed number of credit hours taught in one semester mentioned in the curriculum.

### **Curriculum**

The curriculum is a total description for the BPharm. program and explains the following:

- Detailed syllabus of integrated courses that fulfill the requirements for BPharm. Degree.
- Professional Practice Experience as required for BPharm. Degree.

### Pre-requisite

It refers to each course which is found necessary for each student to complete successfully before being allowed to register in a subsequent one, e.g. Pharmaceutical Organic Chemistry I is made a pre-requisite for Pharmaceutical Organic Chemistry-II.

### Study load

Study load in DPCG means the number of credit hours a student is registered for and has to attend weekly classes. In DPCG in spite of introducing credit hours system, the load is according to the time table fixed for each class. The only provision given to the student will be the minimum credit hours out of the total that they have to successfully complete each semester in order to be promoted to the next semester.

### Course Types

- a. An **elective** is a course chosen by a student listed from different areas available during the study period.
- b. **General education** is a course offering within the following areas such as Islamic studies, English, Mathematics, etc.
- c. A **core requirement** course is a course within a major, which is essential and must be satisfactorily completed to fulfil the requirements of the specific departments.
- d. **Professional Practice Experience** provides an opportunity for a student to have work experiences in community, industry and hospital pharmacies and must be satisfactorily completed to fulfill the requirements of the program.
- e. **Capstone Project:** A project submitted by the students in the fourth year of B. Pharm., based on all round knowledge they have acquired in the four main areas. This project includes a research work, which the students carry out on recent developments in pharmaceutical sciences.



# Appendix A

## Professional Practice Experience

## Internship

### Purpose

The aim of this procedure is to make sure that the students of DPCG get adequate experience in various pharmacy practice settings such as Community Pharmacies, Pharmaceutical Industries and Hospitals, in order to achieve the mission of the College.

Professional Practice Experience (PPE) in pharmacy education is rapidly gaining recognition as it enriches undergraduate curriculum and bridges theory to application.

### Scope of Application

This procedure applies to all the DPCG students, Student's Professional Practice Experience Unit, comprising of a Head, Members, Administrative Staff and the Staff in Community, Pharmaceutical Industry and various Hospitals who are responsible for the implementation of this procedure.

### Definitions

**PPE01:** Introductory Professional Practice Experience for 200 hours during summer vacations in second and third year of B. Pharm.

**PPE02:** Industrial Professional Practice Experience for 100 hours during fourth year of B. Pharm.

**PPE03A:** Advanced Professional Practice Experience in Hospitals for 100 hours during third year of B. Pharm.

**PPE03B:** Advanced Professional Practice Experience in Hospitals for 640 hours during fourth year of B. Pharm.

**Logbooks:** It is supplied by the College to the students, which is an instructional manual with queries regarding Professional Practice Experience in different pharmacy practice settings.

### Responsibility for Application

Head, Student's Professional Practice Experience Unit.

### Process

As the pharmacy profession has moved from the traditional product to patient orientation, curricula within the schools and Colleges of pharmacy have evolved to introduce more experiential course work to foster this patient orientation. This change has been supported by the philosophy of pharmaceutical care that encourages pharmacists to assume a patient advocacy role in optimizing a patient's drug therapy while minimizing the adverse effects of the medication. The role of experiential education is to hasten and enhance the development of the student's ability to provide pharmaceutical care.

Professional Practice Experience, being an integral part of DPCG education program, has been given more emphasis to improve its implementation in the present curriculum and the number of hours has been rescheduled to 1050 to be distributed as follows:

1. Introductory Professional Practice Experience (PPE 01) in <b>Community Pharmacy</b> for not less than 200 hrs.
2. Industrial Professional Practice Experience (PPE 02) in <b>the Pharmaceutical Industry</b> for <b>not less than 100 hrs</b>
4. Advanced Professional <b>Practice Experience</b> (PPE 03A) <b>in Hospitals</b> for <b>not less than 100 hrs</b>
4. Advanced Professional <b>Practice Experience</b> (PPE 03B) <b>in Hospitals</b> for <b>not less than 640hrs</b>

### Professional Practice Experience Test (PPET)

During PPE01 training and after completing 100 hours, the student will be evaluated orally in the pharmacy during the training period. After completion of 200 hours of training, students will be evaluated with structured evaluation checklists, and oral examinations.

After completing PPE 03B training, the students will be evaluated with structured evaluation checklists and oral examinations. Oral and written examination evaluation for PPE 03A and written test for PPE 02 in coordination with the training staffs. It will be useful to assess their knowledge and training outcomes considering accomplishing the training goals' output.

### Evaluation of PPE

At the end of each of PPE01, PPE02, PPE03A & PPE03B the students must answer a questionnaire. College Supervisor will collect these questionnaires and co-ordinate the results. The results of this study will be discussed in the College Academic Council Meeting and the Advisory Committee for any improvements in Professional Practice in Community, Hospitals and Pharmaceutical Industry if considered necessary.

### Logbooks

- Each student will be provided with a Logbook at the start of each PPE.
- The main objective of the Logbook is to achieve the goals of PPE.
- Logbook is a manual designed by Dubai Pharmacy College, which is to be filled by the student during Professional Practice.
- Every Student should have her own "Log Book" to write down daily activities, during the PPE.
- College Supervisor will provide the student with the procedure for filling the Logbook.
- The student should submit the Logbook to the College supervisor at the end of her Professional Practice.

### Student's Responsibility:

The student must be informed before each PPE about her responsibilities which are as follows:

1. She must exhibit a professional appearance in manner and dress and adhere at all times to the standards of dress behaviour.
2. She must wear her name badge at all time during PPE.
3. She must regard all information and activities relating to the pharmacy, the medical community and customers to be confidential and, under no circumstances will such knowledge be revealed to anyone.

4. She must keep in mind that the primary aim of PPE is learning. Learning is not a passive process but requires a continuous, active commitment.
5. She should recognize that the best learning environment is one that fosters mutual respect and courtesy between the trainee and preceptor.
6. She should never question the advice or directions of the preceptor in public, personnel, but rather accept it as a means of learning.
7. She should never be hesitant to admit that something is not known to her and should seek help whenever needed.
8. She should be aware of all laws and rules which govern her practice and should seek clarification of any points which are not clear.
9. If she is regularly asked to violate laws or has knowledge that the pharmacy where she is employed violates such laws, she should immediately report and ask for a change of PPE site or the preceptor. She shall report within five days after the end of each PPE to PPE Coordinator.

### **I) Introductory Professional Practice Experience (PPE 01)**

It is taken by the students in one or more Community Pharmacies selected by PPE coordinator during yearly summer vacations in the second and third years of B. Pharm. under course heading PPE01.

Introductory practice experiences are intended to introduce the student to pharmaceutical care. Service learning and shadowing are two types of experiences that accomplish this goal.

Service learning allows students to participate in service projects that meet the needs of the community, foster a sense of caring for others, and lead to student learning through communication and professionalism. Therefore, there are reciprocal benefits for both the community and pharmacy students. The development of caring relationships during service learning prepares students for establishing conventional patient caring relationships.

Shadowing, another type of introductory practice experience, involves the student in observing practitioners conducting pharmaceutical services in the community pharmacy.

Regular visits, at least once, will be done by the faculty member of DPCG to monitor the students training progress as per the predefined learning objectives and have discussions with preceptors and students. The monitoring can also be done by contacting the student's preceptors via phone, fax and email.

### **Learning Outcomes**

On completion of the Introductory Professional Practice Experience in one or more Community Pharmacies, the students will be able to:

- LO 1.** Identify main pharmacy locations and distribution of medicines in community pharmacy.
- LO 2.** Distinguish the prescription and non-prescription medications and pharmaceutical products available in the market
- LO 3.** Recognize the minor to moderate medical cases that can be managed by the pharmacist
- LO 4.** Recognize the standard information required in a prescription
- LO 5.** Review the prescription for proper product selection, proper dose, proper frequency, proper duration, drug interaction, drug-disease interaction to ensure effective, safe and economical patient care
- LO 6.** Apply calculations required for compounding, dispensing and administering medications with proper conversions between metric, and apothecary system of weights and measures

- LO 7.** Practice proper prescription checking, pricing, preparing, and labelling
- LO 8.** Apply, modify or recommend modifications in prescriptions to ensure effective, safe and economical patient care.
- LO 9.** Resolve prescription problems
- LO 10.** Record prescription using files and / or computer.
- LO 11.** Identify policy to inventory control (including the purchase of medicines, expired medications and return of patients to suppliers)
- LO 12.** Recognise good storage practice in Community pharmacy.
- LO 13.** Apply IT skills for gaining professional information and literature
- LO 14.** Communicate with Health professionals for effective resolution of drug-related problems.
- LO 15.** Communicate with preceptors for reviewing cases, diseases or drugs
- LO 16.** Operate the professional experience in patient counseling and monitoring.
- LO 17.** Communicate with patients for taking patient history, selecting, recommending self-therapy or OTC drugs.
- LO 18.** Develop the concepts for the rational use of different pharmaceutical dosage forms.

### **Supervision of PPE01**

Introductory PPE is carried out under the supervision of the College supervisor (Member of Student Professional Practice Experience Unit) and a preceptor at PPE site who plays a positive role model for students and who possess the following characteristics.

#### **Preceptor's characteristics**

The Preceptor or the Pharmacist should:

1. Have a minimum of one year of professional experience.
2. Be involved in professional organizations.
3. Be competent in the area of practice.
4. Take personal responsibility for patient outcomes.
5. Utilize clinical and scientific knowledge in clinical care decision – making.
6. Demonstrate the ability to have the latest scientific knowledge in the Pharmaceutical field.
7. Demonstrate a desire and an aptitude for teaching.
8. Demonstrate the ability to assess and document student performance.
9. Practice continuous professional development and collaborate with other healthcare professionals as a member of a team.
10. Demonstrate a commitment to his/ her organization, professional society and community.

#### **Role of Preceptor**

1. To train the students as per the objectives of PPE.
2. To evaluate students for their performance during PPE in developing and demonstrating the explicit skills mentioned for each PPE.
3. To ensure the recording of all data in the logbook.
4. To supply the College supervisor a certificate indicating PPE completion of the student in the pharmacy.
5. To report to the College supervisor after completion of PPE.

#### **Steps for Introductory PPE 01**

1. PPE coordinator asks all students to suggest at least two community pharmacies of their choice with the name and qualification of the pharmacists working in these pharmacies.
2. The coordinator collects all the students before PPE and gives them the Log Book.

3. PPE coordinator explains the objectives of PPE01 and student's responsibility during PPE and also provide information to each student about the selected preceptor.
4. Each student receives a letter signed by PPE01 coordinator and the Dean for the preceptor, which has the starting date and completion date of PPE.
5. After completion of PPE01 the Coordinator receives Preceptor's reports and Evaluation sheets and send them to the Evaluation and Examination Unit.

#### Evaluation of students receiving PPE01

Total marks for evaluation of PPE01 are 100, which are distributed as:

S.N.	Particulars	Marks Allotted
1.	Practical Performance (*)	50
2.	Logbook submission	20
3.	Attitude	5
4.	Attendance	5
5.	Oral exam	20
Total		100
Note: the student should achieve at least 70% marks to be considered mandatory pass in PPE01		

(\*) Practical performance includes the following:-

Distribution of Medication in CP (Community Pharmacy)

Storage in CP

Purchasing Methods in CP

Dispensing of Prescriptions

Calculation and preparation of Prescriptions

Dealing with Expired Medicines in CP

Preceptor and Physician Interaction

Dealing with OTC

Dispensing of Controlled Drugs in CP

(\*\*) Logbooks

Each student will be provided with a Logbook at the start of each PPE.

The main objective of the Logbook is to achieve the goals of PPE.

The logbook is a manual designed by Dubai Pharmacy College, which is to be filled by the student during Professional Practice.

Every Student should have her own "Log Book" to write down daily activities, during the PPE.

College Supervisor will provide the student with the procedure for filling the Logbook.

The student should submit the Logbook to the College supervisor at the end of her Professional Practice.

## **II) Industrial Professional Practice Experience (PPE 02)**

**It is taken by the students during the second semester of B. Pharm. 4<sup>th</sup> year in Drug manufacturing industries of U.A.E., which should meet the following requirements:**

1. Should apply GMP.
2. Should have a manufacturing capacity of all types of pharmaceutical products, a well-developed R & D. section, a good Quality Control department and well-arranged storage facilities.
3. Should have a licensed MOH Pharmacist in Production and Quality Control department.
4. Should be functional and operative.

**Learning objectives of the Industrial Professional Practice Experience are:**

**LO 1.** Identify the design and set up of a Pharmaceutical Industry

**LO 2.** Identify the design and set up of a Pharmaceutical Industry.

- LO 3.** Identify the basics in Good Manufacturing Practice.
- LO 4.** Organize purchase and analysis of the raw materials used in the manufacturing of different pharmaceutical products.
- LO 5.** Show experience in various Production Units involved in the manufacturing of solid, liquid, semisolid, and sterile dosage forms, etc.
- LO 6.** Identify the packaging and storage of manufactured pharmaceutical products.
- LO 7.** Show knowledge about quality control, quality assurance and validation of manufactured pharmaceutical products.
- LO 8.** Show experience of working in quality control laboratories having sophisticated instruments like HPLC, GC, and Mass Spectrophotometer etc.
- LO 9.** LO8: Describe the product and development work going on in R & D labs of the Industry.

### **Supervisors for Industrial Professional Practice Experience**

Professional Practice in the Pharmaceutical Industry is monitored under the supervision of:

1. College Supervisor: one of the members of Students Professional Practice Experience Unit.
2. Industry Supervisor: in the drug manufacturing industry.

### **Responsibilities of Industrial PPE Supervisors**

#### **a. College Supervisor**

1. To prepare a list of students eligible for Professional Practice.
2. To send the list of students to the Industry Supervisor.
3. To co-ordinate with the Industry Supervisor for:
  - Student's transportation from College and hostels to Industry and back.
  - Monitoring the Professional Practice program.
  - Solving any problem hindering proper Professional Practice.
4. To prepare a monthly report about Professional Practice of students for review by the College Academic Council.
5. To evaluate students PPE depending on professional reports supplied by them.

#### **b. Industry Supervisor:**

1. To receive a list of students sponsored for Professional Practice.
2. Send a list of enrolled students to the College Supervisor.
3. To prepare a Professional Practice program meeting the following requirements,
  - a. To identify the Units in the Industry where Professional Practice will take place as per the prescribed schedule.
  - b. To identify the person responsible for marking the attendance of students during Professional Practice.
  - c. To determine the mode of Professional Practice and appoint the person responsible for monitoring the program.
  - d. Fulfillment of 50 hours Professional Practice in the Industry.
  - e. To give each student a copy of the Professional Practice program.
4. To submit a report to the College Supervisor about the students' attendance.
5. To submit a report on students assessment to the College Supervisor at the end of Professional Practice in the Pharmaceutical Industry.

**Evaluation of students receiving Industrial PPE 02**

**Total marks for evaluation of Industrial PPE02 are 50, which are distributed as:**

S. No.	Particulars	Marks Allotted
1.	Experience of stores for raw materials and finished products	05
2.	Production for solid, semi-solid, liquid and sterile dosage form.	05
3.	Quality control and Quality assurance	05
5.	Attendance	05
6.	Professional report supplied about student	10
7.	Written test	20
Total		50

### III) Advanced Professional Practice Experience in Hospitals-(Clinical Pharmacy (PPE 03A)

**It is taken by the students in the spring semester of B.Pharm. 3<sup>rd</sup> year and under course heading PPE0A. Hospital training is taken in hospitals under the Dubai Health Authority (DHA). The PPE Coordinator selects the hospitals and it should meet the following requirements:**

- Ministry of Health, U.A.E. or, Dubai should have approved the hospital.
- All activities related to patients must be computerized.

#### **Learning Outcomes of Advance Professional Practice Experience (PPE03A)**

- LO 1.** Effective use of electronic medical records and other technology-based systems or paper-based medical records, to analyze data used in patient care
- LO 2.** Effective use of confidential hospital patient medical health information following hospital rules and policies
- LO 3.** Review patient clinical data including medication profiles
- LO 4.** Drug regimen review and therapeutic recommendations
- LO 5.** Interpret the laboratory tests results and recommend other investigations required for the diagnosis and monitoring of drug treatment within included disease areas
- LO 6.** Categorize the patient's drugs-related needs and different types of patients' treatment-related problems.
- LO 7.** Identify, evaluate, solve and prevent drug-related problems
- LO 8.** Design and develop the therapeutic plan, follow-up and outcome monitoring required to facilitate continuity of patient care process.
- LO 9.** develop and formulate pharmaceutical care plans and conduct effective counseling to the patients
- LO 10.** Communicate with health care professionals for the effective resolution of drug therapy problems
- LO 11.** Interact with other health care professionals

#### **PPE03A Course activities:**

The course consists of both hospital rotations and case discussion sessions (PBL). Students will gain an understanding of rational drug therapy in the treatment of selected diseases; problems associated with implementing rational drug therapy; and the monitoring tools necessary for evaluation of drug therapy. Students will be expected to correlate the findings of the case study with drug therapy and disease.

Students are assigned to subgroups each of 4-5 students throughout the course. This (PPE03A) course is conducted on a weekly basis according to the following schedule: Clinical Activity including Hospital Visit/ rotation for 12 weeks in different wards such as Internal medicine ward, Pediatric ward, ICU ward, CCU ward and Gynecology ward, etc. followed by Case Discussion in (PBL).

## Supervision of PPE03A

**Advanced Professional Practice Experience** PPE is carried out under the supervision of the College supervisors (Members staff in clinical pharmacy and pharmacotherapeutics Department) and a supervisor at PPE site.

### Responsibilities of advanced PPE03A Supervisors

#### a. College preceptor at PPE site

1. To prepare a list of students eligible for advanced Professional Practice.
2. Co-ordinate for Student's transportation from College and hostels to hospital and back.
3. Monitoring the Professional Practice program and arranging the student rotation schedule
4. Marking the attendance of students during Professional Practice and report to the College Supervisor about the students' attendance
5. Orient student to site, policies, and procedures
6. Provide on-going feedback.
7. Direct the students and monitor the students to record assigned patient database information, drug therapy problems, monitoring, parameters, recommendations, and follow-up
8. The direct student to different readings resources.
9. Full responsibility for supervision of the students
10. Ensure the students does not access the patient record independently.
11. Make the students aware of the confidential nature of information concerning patients, hospital personnel or other confidential types of hospital information.
12. Ensure that all students sign a privacy and confidentiality declaration provided by the hospital site.
13. Notify faculty of concerns about student's behavior, work, or progression.

#### b. College Supervisor:

Meet with College supervisor on a weekly basis after the rotation for complete case discussion or case presentation session

#### c. PPE Site Supervisor:

1. To receive a list of students sponsored for advanced Professional Practice.
2. Organize the training program and student distribution in different wards
3. Receive the Signed privacy and confidentiality declaration.
14. Organize orientation lectures for the students by training coordinator and member of infection control and safety.

### Evaluation of student's performance:

Preceptor from Dubai Pharmacy College for Girls (DPCG) will be guiding the students throughout their training. Before the rotation begins, the preceptor and the student should meet and review the rotation sites, goals and objectives, students' performance expectations and criteria to measure performance. During rotation, the preceptor will orient the student to site, policies, and procedures, assess the student's performance, assess the selected clinical cases and direct student to reading resources.

After the rotation, the assessor will evaluate each group of students based on the evaluation criteria. The rotation goals and objectives communicate that the students are expected to provide patient care successfully in the clinical setting.

#### Evaluation of students receiving PPE03A

Total marks for evaluation of PPE03A are 100, which are distributed as:

S. No.	Particulars	Marks Allotted
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1.	Case Discussion (PBL) & Case Presentation	50
2.	Attendance	10
3.	Attitude	5
4.	Case Reports or Case Manual	15
5.	Case-Based Exam	20
6.	Total	100

#### IV) Professional Practice in Hospitals (Advanced PPE 03b)

**It is taken by students in the spring semester of B.Pharm. 4<sup>th</sup> year and under course heading PPE03B. Hospital training is taken in different Dubai Health Authority (DHA) hospitals and primary health care centers. The hospitals are selected by the PPE Coordinator and it should meet the following requirements:**

- c. Ministry of Health, U.A.E. or, Dubai should have approved the hospital.
- d. Pharmacy in the hospital should also be approved by the Ministry of Health and Department of Health.
- e. The hospital pharmacy should have at least five licensed (MOH / DOHMS) pharmacists under its employment.
- f. All activities related to patients, drugs and dispensing in the pharmacy must be computerized.

#### **Learning Outcomes of Advance Professional Practice Experience (PPE03B)**

- LO 1.** Identify basic steps of proper outpatient, inpatient care and proper medication processing according to current standards of care unique to hospitals and health care systems.
- LO 2.** Evaluate prescription drug order for completeness, the accuracy of dosing, route of administration, drug-drug interaction and drug-disease interaction
- LO 3.** Apply calculations required for compounding, dispensing and administering medications with proper conversions between metric, and apothecary system of weights and measures
- LO 4.** Practice proper prescription checking, pricing, preparing, labelling, and storage
- LO 5.** Identify all functions of dispensing and labelling modules in the electronic pharmacy system
- LO 6.** Apply guidelines and standards of practice for preparation, storage, in-process quality control, and administration of sterile dosage forms and parenteral nutrition products in various pharmacy practice settings
- LO 7.** Resolve prescription problems regarding questionable or unclear medication orders and explain any medication errors such as missed doses, incorrect doses, or incorrect drugs.
- LO 8.** Detect and report medication errors, adverse drug reactions and drug interactions
- LO 9.** Recognize Drug distribution systems and policy of dispensing special orders in hospitals: Out-patient and in-patient dispensing
- LO 10.** Analyze and resolve problems associated with patient drug therapy
- LO 11.** Recognize hospital guidelines and policy for ordering, recording and dispensing narcotics in both inpatient and outpatient settings
- LO 12.** Recognize hospital guidelines and policy for proper inventory control
- LO 13.** Communicate effectively with patients and provide proper patient counselling with appropriate terminology
- LO 14.** Establish a prospective therapeutic management plan that includes therapeutic endpoints, monitoring parameters, individualization of dosages, and patient counselling.
- LO 15.** Assess patient medication needs on discharge solving the problems such as drug and dosage discrepancies, where prescriptions should be filled, and when prescriptions are needed

**LO 16.** Communicate effectively with other members of the health care team on topics such as therapeutics, drug information, policies and procedures, and patient planning needs.

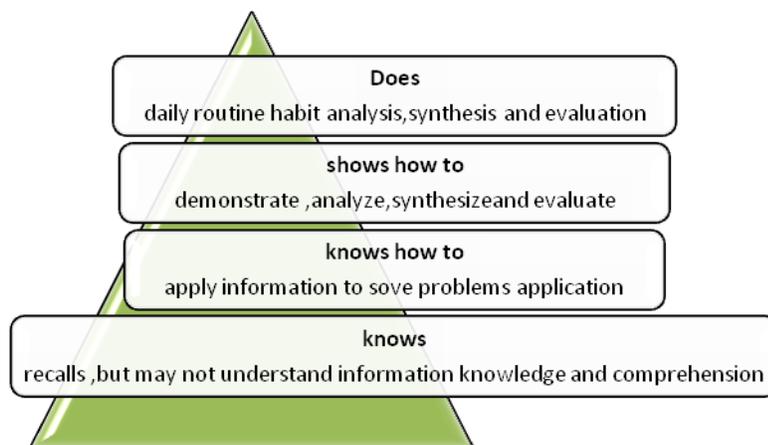
**Student activities during the round:**

1. Review patient medication therapy regularly before rounds in terms of indication, dosage, route, duration, efficacy and toxicity.
2. Obtain information to update and correct the medication profile.
3. Formulate and documents a list of problems for new or existing patients seen by the service. The list should focus on disease, drug, or socioeconomic factors.
4. Attend work rounds on a consistent basis and communicate to other on rounds the following information:
  - a. Patient's current medication use.
  - b. Observed subjective or objective signs of efficacy or toxicity.
  - c. Drug distribution problems (non-formulary status or medication not ordered for a newly admitted patient)
  - d. Prospective therapeutic management plans for patient problems (i.e., change of therapy, discontinuance of medication, change of pain medication, use of prophylactic antibiotics, and identification of therapeutic alternatives).
5. Attend work rounds and gather the following information:
  - a. Subjective and objective data for monitoring a patient's medication therapy.
  - b. Changes in patient status (condition improved or worsened), discharge date, surgery, diagnostic procedures and results of procedures.
  - c. Changes in nondrug therapy (i.e., dietary changes, socioeconomic conditions, or physical therapy.
  - d. Patient's understanding of medication, name strength and expected benefits and toxicities.
  - e. Projected discharge needs including any special counseling.
6. Communicate developments to the unit pharmacist if he or she is unable to attend all or part of rounds.
7. At the end of the day, the students and their supervisors can have a lecture regarding the cases they faced during the daily round to discuss any modification or to clarify any doubt.

**Evaluation of student's performance:**

Preceptor from Dubai Pharmacy College For girls (DPCG) will be guiding the students throughout their training. The weekly visit will be done by the faculty member of DPCG to monitor the students training and have discussions with preceptors and students separately. During rotation, the preceptor will assess the student's performance and provide feedback about the strengths and areas for improvement. The preceptors will make these assessments using evaluation forms and performance criteria that are based on goals and objectives outlined in the rotation syllabus or manual. Therefore, before the rotation begins, the preceptor and the student should meet and review the rotation goals and objectives, students' performance expectations and criteria to measure performance.

The rotation goals and objectives are statements that communicate the level of performance and activity of the students which are expected from them to demonstrate. Typically, rotation goals and objectives communicate that the students are expected to provide patient care successfully in the clinical setting.



This figure describes four levels of ability that a student must achieve to provide patient care. The lowest level of this triangle is "knows" this tier infers that a student can recall knowledge gained during classroom courses and the rotations. Goals and objectives describing this level will be a statement such as "The student can describe symptoms, pathophysiology, laboratory tests, physical examination, prognosis and diagnosis of acute and chronic diseases. The other verbs that could be used in this statement to describe how to use the knowledge gained during classrooms

#### Evaluation of students receiving PPE03B

Total marks for evaluation of PPE03b are 200, which are distributed as:

S. No.	Particulars	Marks Allotted
1.	Out - patient Internship	35
2.	Inpatient internship.	35
3.	Floor Stock Supply and Inspection	25
4.	I.V admixtures / TPN services and chemotherapeutic admixtures.	25
5.	Patient care rounds including	25
6.	Patient counseling including	20
7.	Attitude	10
8.	Attendance	10
9.	Oral exam	15
	<b>Total</b>	<b>200</b>

#### Overall Evaluation of PPE

S. No.	Particulars	Marks Allotted
1.	Introductory PPE01	100
2.	Industrial PPE02	50
3.	Advanced PPE03A	100
4.	Advanced PPE03B	200
	Total	450



## Records

Relevant records such as logbook, etc.... will be checked by the head of Students' Professional Practice Experience Unit

## Filling

With the help of the members of the Students' Professional Practice Experience Unit, it will be filled in the concerned files.



# Appendix B

## Capstone Project

## Introduction

### Introduction:

The students in the fourth year of B. Pharm. submit a research paper of the graduation project based on all-round knowledge they have acquired in the four main areas viz. Clinical Pharmacy and Pharmacy Practice, Pharmaceutics, Pharmacology and Toxicology, and Pharmaceutical Chemistry and Natural Products. This project includes a research work, which the students carry out in a group of 5-7. Students may submit their preference to the Head of Faculty Development and Research Unit by the end of the sixth semester. They have a choice of choosing bench research from subjects like Natural Products, pharmaceutical chemistry, pharmacology, and pharmaceutics; or can do a survey based on data collected from hospitals, a community in subjects related to clinical pharmacy; or can write a review article.

**Prerequisites:** Successfully completed all the courses of first, second and third years.

### Learning Outcomes:

**On successful completion of the capstone project, students should be able to:**

- LO1** Investigate research problems and experiment with new ideas in concurrence with the goals of the College.
- LO2** Evaluate literature critically and relate research findings with reported literature
- LO3** Perform various experiments and research design as a team and evaluate the appropriateness of procedures in research.
- LO4** Predict conclusions from the research findings and organize/report research findings in the form of a project.
- LO5** Defend research work to the panel of experts and present research findings at various scientific platforms.

### Role of Advisor:

The student's research Advisor holds the primary responsibility for providing the appropriate guidance and counsel essential to the scholarly development of the student. Based on the research interest and mutual consent of both students and advisor as well as any updated regulations decided by DPCG administration, each group of student is allocated to specific research supervisor at the end of the sixth semester.

The advisor shall supervise the students' graduation project work and paper preparation and will chair the examining committee for the students' defence of their project and write up.

#### 1) Completion of the Capstone Project

Completion of the Capstone project involves a number of steps, which are as follows:

##### a) Selection and registration of topics for B. Pharm Capstone Project:

The selection and registration of topics for the BPharm Project are made accordingly as mentioned below:

- i.** Collection of project topics from the faculty members.
- ii.** Approving the project topics by Research and Ethical committees.
- iii.** Announcing the project topics by the Faculty Development and Research Unit in the sixth semester.
- iv.** Selection and registration of projects topics.
- v.** Carrying out the project under the faculty member's supervision.

**b) Facilities, Experimental work and data collection for the Capstone Project.**

The experimental work (if any), collection of data for the project, and writing of the paper of the project are done by the students with the help of the facilities made available by Dubai Pharmacy College for Girls. These facilities are:

- Science Laboratories of Dubai Pharmacy College for Girls.
- Science Laboratories of Dubai Medical College for Girls.
- Instrumentation facilities of Central Laboratory of the Foundation.
- Computer labs and library.
- Public and/or private hospitals under the Ministry of Health.
- Pharmaceutical companies.
- Community pharmacies.

**Facilities for the writing of the project:**

The College provides sufficient facilities to the student for efficient writing of their graduation project paper.

Various facilities provided by DPCG are:

- Drug Information Center
- Central Library
- IT facilities

Others:

- Library of Dubai Health Authority Hospitals.

**c) Organization of Capstone Project**

The Capstone Project should be assembled in the order listed below:

1. Title page (titles, authors and affiliations)
2. Abstract ( required; 250 words or less for the bachelors project; double-spaced and organized as a statement of the problem, procedure and/or methods, results and conclusions).
3. Keywords
4. Graphical abstract
5. Introduction
6. Materials and methods
7. Results
8. Discussions
9. Conclusion
9. Acknowledgments
10. References

**Margins**

For copying and binding purposes, every page of the project article must be left 1.25"; top, right and bottom 1". Margins must be left-justified. All manuscript material must fit within these margin requirements (including tables, headers and footers, figures, graphs, and page numbers).

When full-page prints of photographs are desired, the image area of the print must conform to the same margins as the text.

### Spacing

The abstract, acknowledgements, and introduction must be double-spaced. Footnotes, bibliographies, long quoted passages, as well as items in lists, tables, and appendices may be single-spaced. The article must be printed on one side of the paper.

### Style and Documentation

Style and techniques of presentation, including documentation should correspond to standard practices employed in the scholarly field of the research article. Generally acceptable are the documentation styles in The Chicago Manual of Style (University of Chicago Press); The MLA Handbook for Writers of Research Papers (published by the Modern Language Association of America); or the Publication Manual of the *American Psychological Association*. Each candidate should resolve all questions of style and technique with her advisor before preparing the final copy.

**All the points mentioned above are discussed with the concerned supervisor. A draft copy is to be checked and approved from the Supervisor before the final copy is made.**

#### 2) Submission of the Graduation Research Project for Evaluation

- i. Five copies of the graduation project article are submitted to the Head of Faculty Development and Research Unit, latest by 10<sup>th</sup> June.
- ii. The Dean forms an Evaluation Committee for the Project in consultation with the College Academic Council for the evaluation of the Project. The Evaluation Committee consists of the following:
  - a. A panel of external examiners
    - Two experts in the related field of research
  - b. A panel of internal examiners
    - Dean or Head of the concerned Department
    - Supervisors of the Capstone Project
- iii. The students have to present their project work in front of the members of the Evaluation Committee. The evaluation of the project is done from 1<sup>st</sup> July to 10<sup>th</sup> July.
- iv. The evaluation is in the form of an oral presentation by the candidates. The distribution of marks (100) is as follows:
- v.

Published or accepted in an indexed Journal or Conference is an added advantage.	25 Marks
Presentation	25 Marks
Oral exam	25 Marks
Work progress and performance (to be evaluated by the supervisor)	25 Marks
<b>Grand Total</b>	<b>100 Marks</b>

The following evaluation tools (rubrics) are used in evaluation;

Paper& Defense Evaluation	Does Not Meet Expectations (0-50)	Meet Expectations (50-70)	Exceeds Expectations (70-100)
Aims	Limited expansion upon previous research Limited theoretical or applied significance Limited publication impact	Builds upon previous research Reasonable theoretical or applied significance Reasonable publication impact	Greatly expands previous research Exceptional theoretical or applied significance

			Exceptional publication impact
Introduction/ Literature	Little evidence of relevant and current literature. The review of the literature is fragmented and incoherent. Little or no critical appraisal of the literature.	Good evidence of literature having been reviewed. Good attempt to critique existing literature, but the link to this project could be stronger.	Excellent coverage of relevant literature from a range of sources and journals. Highly developed critique of existing literature and it is clearly linked back to the relevance of the chosen topic.
Method	Choice of method is unclear or not justified. Description of method is unclear and inadequate. Choice of data analysis is inappropriate for the study.	A method is appropriate, with good justification provided for it. Key aspects of the method are described but with some minor omissions or lack of detail. Appropriate choice of data analysis with a good justification for that choice.	A method is appropriate, with excellent justification provided. All aspects of the method are described in excellent detail. A sophisticated choice of data analysis accompanied by an excellent justification for that choice.
Results	Presentation of data/results is unclear and inappropriate. Analysis of data is inappropriate or superficial. The analysis contains significant inconsistencies.	Presentation of the data /results is generally clear. Analysis of the data is appropriate but limited. The analysis contains some minor inconsistencies or inaccuracies.	Presentation of the data/results is exceptionally clear. An analysis is appropriate, thorough, and possibly innovative. The analysis contains no inaccuracies or inconsistencies.
Discussion/ Conclusions	Unsubstantiated or invalid interpretation of results. Little or no linking to theory or literature. Limitations of the research are not discussed or are incorrectly outlined. Considerations for further research are not discussed.	Good interpretation of results in relation to the study's aims. Clear references to theory and literature. Limitations of the study are addressed appropriately. Good discussion of possibilities regarding future research.	There is excellent interpretation of results in relation to the study's aims. There are excellent references to theory and literature. Limitations of the study are very well addressed. An excellent discussion of possibilities regarding future research.
Presentation/ Referencing	Formatting is frequently erroneous or inconsistent. There are frequent and major errors regarding language, grammar, and spelling. A non-standard or non-approved referencing system is used and/or there are major errors in referencing both in the text and within the reference list.	There are some errors and inconsistencies in formatting. There are some errors regarding language, grammar, and spelling. A recommended referencing system is used but with a number of errors either in the text or in the reference list.	Formatting is consistent, error-free, and impressive. Language, grammar, and spelling are correct and appropriate throughout the article. A recommended referencing system is used correctly and consistently throughout the manuscript.
Oral presentation and	Does not adequately defend research; does not answer key questions; frequently shows a need for deeper	Adequately defends research; answers questions, but often with little insight; frequently shows a	Masterfully defends research by providing clear and insightful answers to

defence of paper	reflection on vital points; Reads the material from presentation to make the report and is clearly not comfortable with the topic.	need for deeper reflection on minor points; Relies too much on presentation and has difficulty speaking freely to the audience, and is somewhat comfortable with the topic.	questions; uses presentation resources as a guide gives detailed explanations, is easily understandable, and keeps appropriate eye contact with the audience.
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#### Marking Scheme

Item	Score out of 100	Weighting	Percentage
<b>Abstract</b>	<b>5</b>	<b>X0.05</b>	<b>5%</b>
<b>Introduction/Literature</b>	<b>20</b>	<b>X0.2</b>	<b>20%</b>
<b>Method</b>	<b>10</b>	<b>X0.1</b>	<b>10%</b>
<b>Results</b>	<b>10</b>	<b>X0.1</b>	<b>10%</b>
<b>Discussion/Conclusions</b>	<b>30</b>	<b>x0.3</b>	<b>30%</b>
<b>Presentation/Referencing</b>	<b>5</b>	<b>x0.05</b>	<b>5%</b>
<b>Defense</b>	<b>20</b>	<b>x0.2</b>	<b>20%</b>
<b>Total</b>	<b>100</b>	<b>1</b>	<b>100</b>

Upon evaluation, if the graduation project's article fails to meet the requirements for the degree (failed to obtain a minimum of 70%), a bachelor's student will not graduate. However, the student has the option to revise and resubmit the revised paper within two months, after which it is assessed again through the same procedure.

In cases where major plagiarism is alleged, the examination process does not proceed any further, and the case is investigated through DPCG disciplinary processes.

## Placement of Alumni



DPCG FACULTY MEMBERS			
Name	Degrees	Institution	Year
<i>Prof. Dr. Saeed Ahmed Khan</i> Dean, Professor, Pharmaceutical Chemistry and Natural Products Department	Ph. D. (Chemistry) M. Phil. (Chemistry) M. Sc (Chemistry)	Delhi University (India) Delhi University (India) Aligarh Muslim University (India)	1985 1982 1980
<i>Prof. Dr. Naglaa Gamil Shehab</i> Chief Academic Officer Professor, Pharmaceutical Chemistry and Natural Products Department	Ph.D.(Pharmacognosy & Phytochemistry). M.Pharm. (Pharmacognosy) B.Pharm	Cairo University (Egypt) Cairo University (Egypt) Cairo University (Egypt)	2004 1998 1991
<i>Prof. Dr. Aliasgar Fakruddin Shahiwala</i> Graduate Program Director Professor in Pharmaceutics	B.Pharm Postdoctorate Ph. D. (Pharmacy) M.Pharm.	L.M., Gujarat University, India Northeastern University (USA) M.S.University (India) M.S.University (India)	1996 2007 2005 1999
<i>Prof. Dr. Mirza Baig</i> Head, Clinical Pharmacy & Pharmacotherapeutics Department Professor in Clinical Pharmacy	PhD (Clinical Pharmacy) MPharm B.Pharm	University Science Malaysia RGUHS, India Gulbarga University, India	2011 2003 2000
<i>Prof. Dr. Bazigha K. Abdul Rasool</i> Head, Pharmaceutics Department Professor in Pharmaceutics	Ph.D. (Pharmaceutics) M.Sc. (Pharmaceutics) B. Pharm (Pharmacy Sciences)	University of Baghdad, (Iraq) University of Baghdad (Iraq) University of Baghdad (Iraq)	2004 1998 1990
<i>Dr. Fazilatun Nessa</i> Head, Pharmaceutical Chemistry and Natural Products Department Associate Professor in Pharmaceutical Chemistry and Natural Products Department	Ph.D. (Pharmaceutical Chemistry) M.Pharm(Pharmaceutical Chemistry) B.Pharm	University Sains Malaysia(Malaysia) University of Dhaka (Bangladesh) University of Dhaka (Bangladesh)	2004 1991 1989
<i>Dr. Gazala Afreen Khan</i> Head, Examination and Evaluation Unit Assistant Professor Medical Science Department Pharmaceutics Department	Ph. D. (Molecular Genetics) M. Sc (Genetics) B.Sc	Osmania University (India) Osmania University (India) Osmania University (India)	2004 1998 1996
<i>Dr. Hanan Sayed Anbar</i> Head of Faculty Development and Research Unit Assistant Professor in Clinical Pharmacy & Pharmacotherapeutics Department	Ph.D. (Pharmacology & Toxicology) M. Sc. (Pharmacology & Toxicology)	Mansura University (Egypt) Mansura University (Egypt)	2017 2010
<i>Dr. Ammar Ali Saleh Jaber</i> Head, Professional Practice Experience Unit Assistant Professor in Clinical Pharmacy	Postdoctorate PhD (Clinical Pharmacy) MPharm (Pharmacy)	University Science Malaysia University Science Malaysia Jamia Hamdard, India	2018 2017 2011
<i>Dr. Ramdan Mohamed Mahmod Elkalmi</i> Assistant Professor in Clinical Pharmacy & Pharmacotherapeutics Department	PhD (Clinical Pharmacy) MPharm B. Pharm	University Science Malaysia University Science Malaysia Alfateh University, Libya	2011 2003 1994

DPCG FACULTY MEMBERS			
Name	Degrees	Institution	Year
<i>Mrs. Sabeena Salam</i> Assistant Professor <i>Head, Institutional Effectiveness and Publications Unit</i> Head of General Education and Elective Requirements	PhD (ongoing) CELTA B.Ed (English) M.Phil.(English for Specific Purposes)	BITS Pilani (UAE) University of Cambridge (Dubai) Calicut University (India) Pondicherry University (India)	-- 2007 2002 1995
<i>Dr.Doaa Kamal</i> Assistant Professor in Clinical Pharmacy & Pharmacotherapeutics Department	PhD (Clinical Pharmacy) M.Sc. (Clinical Pharmacy) B.Pharm	International Islamic University of Malaysia (IIUM) (Malaysia) Jordan University (Jordan) Dubai Pharmacy College (UAE)	2020 2010 2002
<i>Dr. Rana Sammour</i> Assistant Professor in Pharmaceutics	PhD Pharmaceutical Technology  Msc. Pharmaceutical Technology  B.Pharm	International Islamic University of Malaysia (IIUM) (Malaysia) Ajman University of Science and Technology (UAE) Dubai Pharmacy College (UAE)	2020 2013 2003
<i>Ms. Yousra Adnan</i> Assistant Lecturer	PhD ( ongoing) MSc. Pharmacology &Toxicology B.Pharm	University of Strathclyde UAE University Dubai Pharmacy College (UAE)	2019 2015 2006
<i>Ms. Eiman Shams Eddin Elgailani</i> Assistant Lecturer	PhD ( ongoing) MPharm Clinical Pharmacy B.Pharm	University of Strathclyde Dubai Pharmacy College UAE) Dubai Pharmacy College UAE)	2019 2015 2005
<i>Mrs. AlZahraa Mahmoud Hussain</i> Assistant Lecturer	PhD ( ongoing) MPharm Pharmaceutical Product Development B.Pharm	University of Strathclyde Dubai Pharmacy College UAE) Dubai Pharmacy College (UAE)	2019 2016 2008
<i>Mrs. Khuloud Abu Shawish</i> Teaching & Research Assistant.	MSc. (ongoing) B.Pharm	Sharjah University Dubai Pharmacy College	2020 2014
<i>Mrs. Ola Abedeen</i> Teaching & Research Assistant.	MSc. (ongoing) B.Pharm	Dubai Pharmacy College Dubai Pharmacy College	2020 2008
<i>Mrs. Suzan</i> Professional Staff	Master of Science	Mahatma Gandhi University	2004
<i>Mrs. Doua Mohamad Osman</i> Instructor in Psychology Student Counselor	BA Psychology	Alahfad University for Women (Sudan)	2008
<i>Ms. Yasmeen Yaser Salem</i> Research Assistant.	B.Pharm MSc. (ongoing)	Dubai Pharmacy College	2019
<i>Ms. Salma Mohamed</i> Research Assistant.	MSc. (ongoing) B.Pharm	Dubai Pharmacy College Dubai Pharmacy College	-- 2020

FACULTY from DMCG

<i>Dr. Shifaan Khanday</i> Assistant Professor in Anatomy	<i>Prof. Dr. Hafez</i> Professor in Biochemistry.
<i>Prof. Dr. Abeer Abdel Moneim</i> Professor in Physiology	<i>Prof. Dr. Naglaa Raafat Abdl Raob,</i> Professor in Biochemistry.
<i>Dr. Rasha</i> Associate Professor in Physiology	<i>Prof. Dr. Samia</i> Professor in Psychology
<i>Prof. Dr. Ghazala Mehdi</i> Professor in Pathology	
<b>PART-TIME FACULTY</b>	
<i>Dr. Farzana Firdouse</i> PhD Information Technology Assistant Professor in Computer Applications and Mathematics	<i>Dr. Jinan</i> PhD (UK) Assistant Professor in Islamic Studies
<i>Dr. Mariem Galadari</i> Lecturer in Pharmacy Laws Cairo University	

<b>SUPERVISORS FOR PROFESSIONAL PRACTICE EXPERIENCE</b>	
<p><b>HOSPITALS</b></p> <p><i>Prof. Dr. Ali Syed Hussain</i>, M.Sc., Ph.D.(USA) Director, Pharmaceutical Services, Coordinator, Professional Practice Experience, Dubai Health Authority-Dubai</p> <p><i>Mrs. Amal Ali Salem</i>, B. Pharm. Chief Pharmacist Supervisor, Al Wasl Hospital- Dubai.</p> <p><i>Mr. Moh'd Sameh Ali</i>, B. Pharm. Chief Pharmacist, Supervisor, Rashid Hospital- Dubai.</p> <p><i>Mr. Murtada Mohd.</i>, B. Pharm. Actg., Chief Pharmacist, Supervisor- Dubai Hospital, Dubai.</p> <p><i>Mrs. Fareeda Al Khaja</i>, B. Pharm. (Egypt)Chief Pharmacist Supervisor, Al Maktoum Hospital- Dubai.</p> <p><i>Ms. Lara Qadir</i> Mafraq Hospital, Abu Dhabi</p> <p><i>Ms. HebaElkholy</i> SKMC Hospital, Abu Dhabi</p> <p><i>Ms. Mahat Hussain</i> Senior Pharmacist (Dubai Health Authority)</p>	<p><b>PHARMACEUTICAL INDUSTRY</b></p> <p><i>Mr. Idrees Siddiqui</i> Manager Technical Operations Global Pharma Co LLC, Dubai- UAE</p> <p><i>Mr. Ijaz Sheikh</i> Pharmaceutical Industry</p> <p><i>Mr. Ejaz Shahid</i> Pharmaceutical Industry</p> <p><b>COMMUNITY PHARMACY</b></p> <p><i>Ms. Mariam M.pharm</i> Contact Number: +971543056363 Email ID: <a href="mailto:mariam.o@supercare.ae">mariam.o@supercare.ae</a> Position: Regulatory Affair Manager P.O.Box: 118347, Dubai. U.A.E <i>Supercare Pharmacy</i></p> <p><i>Mr. Mohd. Sandeep M.pharm</i> Contact Number: 0529236592 Email ID: <a href="mailto:m.sandeep@asterpharmacy.com">m.sandeep@asterpharmacy.com</a> <i>Aster Pharmacy</i></p> <p><i>Mr. Eby John M.Pharm</i> Contact Number: +971529034923 Email ID; <a href="mailto:eby.k@asterpharmacy.com">eby.k@asterpharmacy.com</a> <i>Aster Pharmacy</i></p>